U.S. Department of Education

Washington, D.C. 20202-5335

APPLICATION FOR GRANTS UNDER THE

CSP Non-SEA Planning, Program Design, and Implementation (84.282B)

CFDA # 84.282B

PR/Award # U282B120053

Gramts.gov Tracking#: GRANT11152396

OMB No. , Expiration Date:

Closing Date: Jun 06, 2012

Table of Contents

Form	Page
1. Application for Federal Assistance SF-424	e3
2. Assurances Non-Construction Programs (SF 424B)	e6
3. Disclosure Of Lobbying Activities (SF-LLL)	e8
4. ED GEPA427 Form	e9
Attachment - 1 (1235-StatementofRTHSGeneralEducationProvisionAct)	e10
5. Grants.gov Lobbying Form	e11
6. Dept of Education Supplemental Information for SF-424	e12
7. ED Abstract Narrative Form	e13
Attachment - 1 (1234-RTHSEdAbstract)	e14
8. Project Narrative Form	e15
Attachment - 1 (1249-RTHSProjectNarrativeJune6)	e16
9. Other Narrative Form	e66
Attachment - 1 (1237-BlizzardResume)	e67
Attachment - 2 (1238-GrundenResume)	e69
Attachment - 3 (1239-BoardofDirectorsBiographies)	e71
Attachment - 4 (1240-CommunityMeetings)	e78
Attachment - 5 (1241-FacultyDevelopmentAdvisorsBiographies)	e81
Attachment - 6 (1242-NCSBERTHSApprovalLetter)	e85
Attachment - 7 (1243-RTHSFacultyResumes)	e94
Attachment - 8 (1244-BiogenIdecFoundationLetterofSupport)	e121
Attachment - 9 (1245-UNCSchoolofEdLetterofSupport)	e122
Attachment - 10 (1246-NCSSMLetterofSupport)	e123
Attachment - 11 (1247-ResearchTriangleFoundationLetterofSupport)	e124
Attachment - 12 (1248-CharterAgreementRTHS06052012)	e125
10. Budget Narrative Form	e138
Attachment - 1 (1236-RTHSBudgetNarrative)	e139
11. Form FaithBased_SurveyOnEEO-V1.2.pdf	e151
12. Form ED_524_Budget_1_2-V1.2.pdf	e153

This application was generated using the PDF functionality. The PDF functionality automatically numbers the pages in this application. Some pages/sections of this application may contain 2 sets of page numbers, one set created by the applicant and the other set created by e-Application's PDF functionality. Page numbers created by the e-Application PDF functionality will be preceded by the letter e (for example, e1, e2, e3, etc.).

OMB Number: 4040-0004
Expiration Date: 03/31/2012

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 06/06/2012

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: CONTEMPORARY SCIENCE CENTER

* b. Employer/Taxpayer Identification Number (EIN/TIN): 45-0481093

* c. Organizational DUNS: 0409672010000

d. Address:

* Street1: PO Box 13453
Street2: 10 Park Drive
* City: Research Triangle Park
County/Parish:
* State: NC: North Carolina
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 27709-3453

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:
* First Name: Pamela
Middle Name:
* Last Name: Blizzard
Suffix:

Title: Executive Director

Organizational Affiliation:

* Telephone Number: 919-426-4274
Fax Number: 919-676-8782

* Email: [redacted]

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

M: Nonprofit with 501C3 IRS Status (Other than Institution of Higher Education)

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

U.S. Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.282

CFDA Title:

Charter Schools

*** 12. Funding Opportunity Number:**

ED-GRANTS-041312-001

* Title:

Office of Innovation and Improvement (OII): Charter Schools Program (CSP): CSP Grants to Non-State Educational Agency (Non-SEA): Planning, Program, Design, and Initial Implementation Grants CFDA Number 84.282B

13. Competition Identification Number:

84-282B2012-1

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Research Triangle High School will give a globally competitive STEM education to a diverse spectrum of students in the Research Triangle area, blending digital media with RTP company experiences.

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant NC-004 b. Program/Project NC-all

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 07/01/2012 * b. End Date: 06/30/2015

18. Estimated Funding ($):

* a. Federal	22,400.00
* b. Applicant	10,000.00
* c. State	740,431.00
* d. Local	399,472.00
* e. Other	75,000.00
* f. Program Income	166,206.00
* g. TOTAL	1,413,509.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☒ a. This application was made available to the State under the Executive Order 12372 Process for review on 06/05/2012.

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Pamela

Middle Name:

* Last Name: Blizzard

Suffix:

* Title: Executive Director

* Telephone Number: 919-426-4274 Fax Number:

* Email: [redacted]

* Signature of Authorized Representative: Pamela Blizzard * Date Signed: 06/06/2012

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.

2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.

3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.

4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.

5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).

6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C.§§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U. S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee- 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.

7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.

10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.

11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).

12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.

13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.

15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.

16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.

17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

* SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	* TITLE
Pamela Blizzard	Executive Director
* APPLICANT ORGANIZATION	* DATE SUBMITTED
CONTEMPORARY SCIENCE CENTER	06/06/2012

Standard Form 424B (Rev. 7-97) Back

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
0348-0046

1. * Type of Federal Action:
- [ ] a. contract
- [x] b. grant
- [ ] c. cooperative agreement
- [ ] d. loan
- [ ] e. loan guarantee
- [ ] f. loan insurance

2. * Status of Federal Action:
- [ ] a. bid/offer/application
- [x] b. initial award
- [ ] c. post-award

3. * Report Type:
- [x] a. initial filing
- [ ] b. material change

4. Name and Address of Reporting Entity:

[x] Prime [ ] SubAwardee

** Name* CONTEMPORARY SCIENCE CENTER

** Street 1* PO Box 13453 *Street 2* 10 Park Drive

** City* Research Triangle Park *State* NC: North Carolina *Zip* 27709

Congressional District, if known: NC

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency:
n/a

7. * Federal Program Name/Description:
Charter Schools

CFDA Number, *if applicable:* 84.282

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$

10. a. Name and Address of Lobbying Registrant:

Prefix ** First Name* n/a *Middle Name*

** Last Name* n/a *Suffix*

** Street 1* *Street 2*

** City* *State* *Zip*

b. Individual Performing Services (including address if different from No. 10a)

Prefix ** First Name* n/a *Middle Name*

** Last Name* n/a *Suffix*

** Street 1* *Street 2*

** City* *State* *Zip*

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

*** Signature:** Pamela Blizzard

***Name:** *Prefix* ** First Name* Pamela *Middle Name*

** Last Name* Blizzard *Suffix*

Title: **Telephone No.:** **Date:** 06/06/2012

Federal Use Only:

Authorized for Local Reproduction
Standard Form - LLL (Rev. 7-97)

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

NOTICE TO ALL APPLICANTS

The purpose of this enclosure is to inform you about a new provision in the Department of Education's General Education Provisions Act (GEPA) that applies to applicants for new grant awards under Department programs. This provision is Section 427 of GEPA, enacted as part of the Improving America's Schools Act of 1994 (Public Law (P.L.) 103-382).

To Whom Does This Provision Apply?

Section 427 of GEPA affects applicants for new grant awards under this program. **ALL APPLICANTS FOR NEW AWARDS MUST INCLUDE INFORMATION IN THEIR APPLICATIONS TO ADDRESS THIS NEW PROVISION IN ORDER TO RECEIVE FUNDING UNDER THIS PROGRAM.**

(If this program is a State-formula grant program, a State needs to provide this description only for projects or activities that it carries out with funds reserved for State-level uses. In addition, local school districts or other eligible applicants that apply to the State for funding need to provide this description in their applications to the State for funding. The State would be responsible for ensuring that the school district or other local entity has submitted a sufficient section 427 statement as described below.)

What Does This Provision Require?

Section 427 requires each applicant for funds (other than an individual person) to include in its application a description of the steps the applicant proposes to take to ensure equitable access to, and participation in, its Federally-assisted program for students, teachers, and other program beneficiaries with special needs. This provision allows applicants discretion in developing the required description. The statute highlights six types of barriers that can impede equitable access or participation: gender, race, national origin, color, disability, or age. Based on local circumstances, you should determine whether these or other barriers may prevent your students, teachers, etc. from such access or participation in, the Federally-funded project or activity. The description in your application of steps to be taken to overcome these barriers need not be lengthy; you may provide a clear and succinct description of how you plan to address those barriers that are applicable to your circumstances. In addition, the information may be provided in a single narrative, or, if appropriate, may be discussed in connection with related topics in the application.

Section 427 is not intended to duplicate the requirements of civil rights statutes, but rather to ensure that, in designing their projects, applicants for Federal funds address equity concerns that may affect the ability of certain potential beneficiaries to fully participate in the project and to achieve to high standards. Consistent with program requirements and its approved application, an applicant may use the Federal funds awarded to it to eliminate barriers it identifies.

What are Examples of How an Applicant Might Satisfy the Requirement of This Provision?

The following examples may help illustrate how an applicant may comply with Section 427.

(1) An applicant that proposes to carry out an adult literacy project serving, among others, adults with limited English proficiency, might describe in its application how it intends to distribute a brochure about the proposed project to such potential participants in their native language.

(2) An applicant that proposes to develop instructional materials for classroom use might describe how it will make the materials available on audio tape or in braille for students who are blind.

(3) An applicant that proposes to carry out a model science program for secondary students and is concerned that girls may be less likely than boys to enroll in the course, might indicate how it intends to conduct "outreach" efforts to girls, to encourage their enrollment.

We recognize that many applicants may already be implementing effective steps to ensure equity of access and participation in their grant programs, and we appreciate your cooperation in responding to the requirements of this provision.

Estimated Burden Statement for GEPA Requirements

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is **1894-0005**. The time required to complete this information collection is estimated to average 1.5 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. **If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to**: U.S. Department of Education, 400 Maryland Avenue, S.W., Washington, D.C. 20202-4537.

Optional - You may attach 1 file to this page.

StatementofRTHSGeneralEducationProvisionAc | Add Attachment | Delete Attachment | View Attachment

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Statement of Research Triangle High School Department of Education's General Education Provision Act

RTHS has taken or will take the following steps to ensure equitable access to our program: (gender, race, national origin, color, disability or age for students, teachers and other program beneficiaries)

1. RTHS website and printed materials were translated into Spanish and distributed to the Latino communities of Durham and Wake counties at regional Latino centers.
2. RTHS will contract with the Triangle Transit Authority, which manages regional bus routes into the Research Triangle Park, for bus passes for all students to the school.
3. RTHS will ensure any student with state or federal Individual Education Plans (Section 504) has access to all learning materials modified for their needs. Our digital materials/playlist model will facilitate this access.
4. RTHS website and printed materials include photos of students of color, both genders, and various national origins.
5. RTHS has made a leadership commitment to recruiting teachers and staff across national origin and racial backgrounds, and is pleased to have 25% of initial staff be of African American background.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,00 0 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subjec t to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

* APPLICANT'S ORGANIZATION

CONTEMPORARY SCIENCE CENTER

* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE

Prefix: | * First Name: Pamela | Middle Name:

* Last Name: Blizzard | Suffix:

* Title: Executive Director

* SIGNATURE: Pamela Blizzard | * DATE: 06/06/2012

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Close Form

SUPPLEMENTAL INFORMATION
REQUIRED FOR
DEPARTMENT OF EDUCATION GRANTS

1. Project Director:

Prefix:	* First Name:	Middle Name:	* Last Name:	Suffix:
	Pamela		Blizzard	

Address:

* Street1: PO Box 13453
Street2: 10 Park Drive
* City: Research Triangle Park
County: Durham
* State: NC: North Carolina
* Zip Code: 27709
* Country: USA: UNITED STATES

* Phone Number (give area code): 919-426-4274
Fax Number (give area code):

Email Address:

[redacted]

2. Applicant Experience:

Novice Applicant ☐ Yes ☐ No ☒ Not applicable to this program

3. Human Subjects Research

Are any research activities involving human subjects planned at any time during the proposed project Period?

☐ Yes ☒ No

Are ALL the research activities proposed designated to be exempt from the regulations?

☐ Yes Provide Exemption(s) #:

☐ No Provide Assurance #, if available:

Please attach an explanation Narrative:

Add Attachment Delete Attachment View Attachment

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Abstract

The abstract narrative must not exceed one page and should use language that will be understood by a range of audiences. For all projects, include the project title (if applicable), goals, expected outcomes and contributions for research, policy, practice, etc. Include population to be served, as appropriate. For research applications, also include the following:

- Theoretical and conceptual background of the study (i.e., prior research that this investigation builds upon and that provides a compelling rationale for this study)
- Research issues, hypotheses and questions being addressed
- Study design including a brief description of the sample including sample size, methods, principals dependent, independent, and control variables, and the approach to data analysis.

[Note: For a non-electronic submission, include the name and address of your organization and the name, phone number and e-mail address of the contact person for this project.]

You may now Close the Form

You have attached 1 file to this page, no more files may be added. To add a different file, you must first delete the existing file.

* Attachment: RTHSEdAbstract.pdf | Add Attachment | Delete Attachment | View Attachment

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Research Triangle High School Abstract Narrative
Planning, Program Design, and Initial Implementation 84.282B

Research Triangle High School
PO Box 13453, 10 Park Drive, Research Triangle Park, NC 27709
Pamela Blizzard, RTHS project director
919-426-4274, blizzkin@gmail.com

Research Triangle High School (RTHS) is an independent public charter high school serving 9th through 12th graders in Durham, North Carolina with a Science, Technology, Engineering, and Math (STEM) focus. RTHS will open in the fall of 2012 with 160 9th graders and expand to 420 students in grades 9 to 12 in 2015. RTHS will bring a globally competitive education to a broad spectrum of students. RTHS is committed to enrolling students who reflect the Research Triangle region's diversity in ethnicity, socioeconomic status, rural vs. urban composition, gender and non-English-speaking origins. Two founding personnel responsible for the conception and implementation of RTHS were key in the founding and successful implementation of Raleigh Charter High School, a nationally acclaimed NC school, and the Contemporary Science Center, a successful science education non-profit. RTHS's education will offer college-preparatory course content built on the NC Common Core Curriculum and the *Framework for K-12 Science Education*. The school will rely upon cutting-edge instructional techniques that blend online material of open educational resources and industry-based experiences. Coursework will be Flipped so that students will learn from online lectures and material *outside* of class time, and learn from group labs, seminars and collaborative hands-on projects *during* class time. Teachers will have more opportunity to work closely with students while students will have greater opportunities to learn from instructional experiences that best match their learning styles, schedules, and needs. The school will employ an extended day designed to provide more opportunities for instruction and help outside of class, as well as overcoming transportation barriers. RTHS will endeavor to provide more than one year of learning gains per year of instruction. RTHS will leverage the school's public and private support base in and around the Research Triangle Park where the school is located. Students will engage in applied science project work emulating the work going on at companies and universities in the area preparing them for the global workplace of the 21st century. RTHS will strive to provide Research Triangle industry internships. Learning Teams of RTHS teachers, resident teachers from across the state, industry experts and retirees will support students and key STEM learning objectives. Ultimately, RTHS is committed to scaling its innovative offerings to the greater NC educational community through its model of blending virtual and experiential learning, Learning Teams, and a teacher residency program to achieve the school's mission of increasing access to a globally competitive STEM education for students and teachers across NC.

Close Form

Project Narrative File(s)

*** Mandatory Project Narrative File Filename:** RTHSProjectNarrativeJune6.pdf

Add Mandatory Project Narrative File | Delete Mandatory Project Narrative File | View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File | Delete Optional Project Narrative File | View Optional Project Narrative File

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Research Triangle High School Project Narrative

Planning, program design, and implementation CFDA No. 84.282B

Table of Contents

I. Competitive Preference Priorities **3**

1. Competitive Preference Priority 1--Improving Achievement and High School Graduation Rates **3**

(g) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for students in rural local educational agencies. 3

(h) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for students with disabilities. 4

(i) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for English learners. 5

(j) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for high-need students. 6

(l) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for all students in an inclusive manner that ensures that the specific needs of high-need students participating in the project are addressed. 6

2. Competitive Preference Priority 2--Promoting Diversity **7**

3. Competitive Preference Priority 3--Improving Productivity **8**

II. Application requirements **9**

III. Selection Criteria **10**

1. Quality of the proposed curriculum and instructional practices **10**

2. The extent to which the proposed project will assist educationally disadvantaged students in meeting State academic content standards and State student academic achievement standards 19

3. The quality of the strategy for assessing achievement of the charter school's objectives 21

4. The extent of community support for the application 29

5. The extent to which the proposed project encourages parental & community involvement 34

6. Quality of project personnel 35

(1) The extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability 35

(2) The qualifications, including relevant training and experience, of key project personnel 36

7. Quality of the management plan 40

8. Existence and quality of a charter or performance contract between the charter school and its authorized public chartering agency 47

9. The degree of flexibility afforded by the SEA to the charter school 48

I. Competitive Preference Priorities

1. Competitive Preference Priority 1--Improving Achievement and High School Graduation Rates

Research Triangle High School (RTHS) will improve achievement, accelerate student learning, increase high school graduation rates, and improve college enrollments rates inclusively for a broad spectrum of students including students from rural and low-income schools, disadvantaged backgrounds, English learners, gifted students, individuals with disabilities, and high-risk students through its innovative and high-quality program and curriculum (G.S. 115C-239.29A(2)). The RTHS academic model of Flipped learning and digital materials blended with hands-on experiences is ideal for all students as it removes limits placed on student learning by time and space. The RTHS extended school day model will enable students to have greater access to the school resources and direct student-teacher contact time. Learning at RTHS will be individualized. The entire structure of the school will enable constant looping back through material and differentiated instruction and acceleration, as needed and as guided by our Learning Teams. RTHS's methods will ensure that all students enrolled will successfully progress through college-preparatory courses required for graduation in order to succeed in college and the Research Triangle Park (RTP) work-world and beyond.

(g) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for students in rural local educational agencies.

RTHS will be located in the heart of RTP in Durham County, but has the potential to serve students from the 13 counties across the Triangle region as defined by the Research Triangle

Regional Partnership[1]. Our 2012 enrolling class has a student that resides in the Harnett County School district (NCES LEA ID 3702010; State ID 430), a Rural and Low-Income School (RLIS) program authorized under Title VI Part B of ESEA. Additionally, based on our location, there is the potential to serve students from other RLIS districts, including, but not limited to, Moore County Schools (NCES LEA ID 3703090; State ID 630), Vance County Schools (NCES LEA ID 3704650; State ID 910), and Warren County Schools (NCES LEA ID 3704740; State ID 930)

(h) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for students with disabilities.

The needs of special education students and students will disabilities will be met in accordance with federal and state laws and regulations, including the IDEA, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, N.C. state legislation (G.S. 115C-106 Et seq.), N.C. charter school legislation (G.S. 115C-238.29E and F), and other relevant regulations/legislation and all provisions of State and Federal special education laws. Students entering with an Individual Education Plan (IEP) will be provided a full inclusion program with the input from the Special Education Teacher and their School Support Team. All efforts will be made to accommodate the IEP within the least restrictive environment. Research has shown that students whose exceptional needs can be met in a regular classroom benefit from remaining in that setting. Self-contained and/or one-on-one services will be provided for students with an IEP requiring such services. Staff will be made aware of students with an IEP and trained in their education such that that all requirements are being met as prescribed. The IEP will be updated per the law and adjustments will be made to accommodate each student. All appropriate staffing and meetings will be held as required by N.C. law and

[1] http://www.researchtriangle.org/

Federal law, for identification of children and meeting the needs of children with potential special needs. There will be ongoing assessment in classrooms to determine if a child is of special needs. RTHS will have on-staff certified Exceptional Student Education and Limited English Proficient (LEP) faculty members that will work with classroom teachers to assist in modifying the curriculum for identified students, supporting IEPs, developing learning strategies with the students, and meeting with parents and teachers to accelerate learning and improve the graduation rates and college enrollment of these students.

(i) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for English learners.

LEP Students and English learners will initially self-identify by declaring a native language other than English when entering RTHS. Students will be tested using the standards of World Class Instructional Design and Assessment, used to identify English proficiency in LEP students in 27 states, including N.C. If the student's need is significant enough, RTHS will provide English as a Second Language instruction. Literacy support in content areas for all LEP students in the areas of linguistic complexity, content vocabulary, vocabulary usage, and language control will be provided. Training for all instructors in how to support LEP students will also be a key element of the literacy support provided. We will comply with all requirements per Federal and N.C. law to make sure that the LEP are served appropriately. By addressing these student's specific needs, RTHS can accelerate learning and improve the graduation rates and college enrollment for English learners.

(j) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for high-need students.

RTHS will provide assistance to students that are not performing at expected levels and are at risk of educational failure to ensure the continued progress of student growth. Students will be identified by a pre-matriculation assessment to determine if they are at risk of not progressing in college-prep material and/or meeting State academic content standards. Teacher Learning Teams will analyze all formative and summative data, and all rubrics and observations, to regularly assess which students are not performing at expected achievement levels, defined as learning college-preparatory material at a level and depth needed to progress to the next high school course and on into college-level material. Students not progressing will go through a pyramid of intervention, from redirecting their learning on their Playlists to personal attention. The RTHS learning model allows high-needs students to loop through various forms of the same material over the course of the full school day and revisit the content at a later date. RTHS will promote differentiation in the form of multiple content-distribution methods chosen by the student and teacher enabling students to address content in ways more meaningful and efficacious allowing these high-needs students to accelerate learning and improve the graduation rates and college enrollment.

(l) Accelerating learning and helping to improve high school graduation rates and college enrollment rates for all students in an inclusive manner that ensures that the specific needs of high-need students participating in the project are addressed.

All students will be treated on an individual and professional basis. When the students require extended services, it will be the design of the school to use the extended school day and Flipped model with flexible access to teachers, tutors, and peers to give these students the added

instruction or services they require in an inclusive manner. The intent of this design is to keep these students from being seen as exceptional while still meeting their needs.

2. Competitive Preference Priority 2--Promoting Diversity

RTHS understands that we will gain strength by enrolling and hiring people of different races, creeds, and cultures. RTHS is committed to having a student and faculty population who reflect the N.C. Triangle region's diversity in ethnicity, socioeconomic status, rural vs. urban composition, gender, and non-English-speaking origins. This commitment will enable students to have the critical mass to form cohort groups that support each other socially and communally, while also cross-organizing for experiential learning, labs, mentoring, interning, the arts, and sports. Intentional hiring of diverse faculty will allow faculty cohort mentors to guide these groups socially and academically. RTHS's flipped learning model relies heavily on in-class collaborative group work reflective of the diverse teams students will experience in the work world. These groups will encourage students from different backgrounds to work together and express different ideas and perspectives.

RTHS will not discriminate or deny access to school programs, courses, extracurricular activities and employment opportunities on the basis of race, color, religious creed, national origin, ancestry, sexual orientation, disability or handicap (42 U.S.C. § 2000(c)-(d) (Title IV and Title VI)). RTHS will abide by the N.C. charter school legislation, G.S. 115C-238.29F(g)(5). In addition, under section 504 of the federal Rehabilitation Act of 1973, no otherwise qualified individual, shall solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of or be subjected to discrimination under any program or activity at RTHS. Per G.S. 115C-375.3(g)(5) within one year after RTHS begins operation, the population of the school shall reasonably reflect the racial and ethnic composition of the general population

residing within the local school administrative unit (Durham County) in which RTHS is located. RTHS will use race-conscious measures to address diversity in a general way without treating each student in different fashion solely on the basis of a systematic, individual typing by race.

Since RTHS is committed to enrolling a diverse population, we will make a concerted effort to reach out and market to the diverse populations. Each fall the School Leader will present to the Board the diversity and socioeconomic status statistics for the newly enrolled school population and faculty & staff in a race-conscious way that will not lead to differential treatment of an individual based on their sole definition of race. From this information, the Board and school leadership will modify the plans for school marketing communications and recruitment events for the coming winter. RTHS will use race-neutral or generalized race-based approaches by recruiting students and faculty in a targeted fashion such as base middle schools and geographic regions. These efforts will ensure that RTHS has a diverse community and that all ethnic groups are provided the same opportunity for school enrollment and hiring.

3. Competitive Preference Priority 3--Improving Productivity

In accordance with G.S. 115C-239.29A(1) and G.S. 115C-239.29A(3), RTHS will improve student learning and use innovative and research based methods by employing multiple methods of content delivery to improve productivity. RTHS learning methods will focus on a strong blend of digital and experiential learning:

- Project-based learning (PBL) experiences developed in partnership with RTP STEM company experts.
- Open educational resources from a wide spectrum of materials, including teacher-produced audios and videos (Flipped material), web-sourced animations, and online courses ranging from Khan Academy to MIT's OpenCourseWare.

- Modification of the school learning cycle by empowering students to learn intensively at home through digital materials, and to learn collaboratively at school through PBL experiences.

RTHS will take advantage of the experience of the Contemporary Science Center (CSC), its founding non-profit parent, and its Field Study model of day-long industry-based PBL's. RTHS will also rely on the incoming expertise of master teacher Deborah Brown, a trained PBL leader from a local New Tech High school. RTHS will take advantage of local Flipped Learning researcher Dr. Lodge McCammon and his cadre of teachers at the Friday Institute for Educational Innovation at N.C. State University. We will also use the existing open resources included in past CSC Field Studies. Dr. McCammon's work has shown that Flipped Learning significantly increases teachers' efficiencies and abilities to meet the needs of more students, more often, in less time. Pushing traditional classwork into homework time greatly increases teacher efficiency by allowing students to learn at their own pace at home, and teachers to focus intently on student needs at school.

II. Application requirements

RTHS will respond to the eligible Application Requirements in the context of its responses to the **III. Selection Criteria** as follows:

Application Requirement	Addressed in Selection Criteria Question
(i)	1.
(ii)	7.
(iii)	1. & 3. & 7.
(iv)	9.
(v)	4. & 5.
(vi)	7.
(viii)	7.
(ix)	4.
(x)	2. & 9.
(vii) and (xi)	Not applicable to RTHS's grant application

III. Selection Criteria

1. Quality of the proposed curriculum and instructional practices

Mission and population

Research Triangle High School (RTHS) is an independent public charter high school serving 9th through 12th graders in Durham, N.C. RTHS's mission is clear, concise, and achievable: RTHS will increase access to globally competitive Science, Technology, Engineering, and Math (STEM) education for students and teachers across N.C., by incubating, proving and scaling innovative models of teaching and learning.

RTHS will open in August 2012 with our largest enrollment of 160 9th grade students. The population will grow over the next four years. Each year we will add 105 new 9th graders. By 2015 RTHS will serve a total of 420 students in grades nine through 12. RTHS is committed to enrolling students who reflect the Research Triangle region's diversity in ethnicity, socioeconomic status, rural vs. urban composition, gender and non-English-speaking origins. The demographics for our first 9th grade class, reflects the Triangle's diversity with students from 15 cities and seven counties. Our student population self-identified as 44% African American, 39% Caucasian, and 17% other, and 21% free and reduced lunch.

Background:

Successful implementation of a previous charter school and science education non-profit

The mission and vision of RTHS was developed from a blend of our work at Raleigh Charter High School (RCHS), a nationally acclaimed N.C. high school[2][3] and the successful

[2] http://www2.ed.gov/news/newsletters/innovator/2005/0705.html

[3] http://www.collegeboard.com/prod_downloads/about/news_info/ap/2006/2006_ap-report-nation.pdf

science education non-profit, the Contemporary Science Center (CSC). In addition to implementing cutting-edge and researched-based program elements, RTHS will utilize and expand on successful curriculum and instructional practices from both of these institutions. Two founding personnel responsible for the conception and implementation of RTHS were key in the successful implementation of the curriculum and instructional practices of RCHS and the CSC - Pamela Blizzard is RTHS's Executive Director and Alliances and Partnership (A&P) Director, and Eric Grunden is RTHS's Chief School Officer and Principal.

In 1998, Ms. Blizzard led the founding team for RCHS. She formed the founding Board, wrote the charter application with that Board's input, and then led the hiring, start-up and opening while defining aggressive educational goals. Mr. Grunden joined the faculty at RCHS in its second year of operation where he became a key member in implementing a cutting edge and rigorous science department as science department chair. (See the response to **III.6(2)** for more details about Mrs. Blizzard and Mr. Grunden.)

A core program innovation at RCHS has been its Flex Day Program, which Mrs. Blizzard launched and Mr. Grunden expanded. This program is a regular 'shift' in the school schedule that allows teachers to create and students to experience curriculum outside of the regular classroom requirements and enables the entire school to have integration of hands-on rigorous learning from primary resources. Teachers work with local institutions and experts to create Flex Day experiences. Examples include students visiting the Legislature, practicing Spanish at a local market, tutoring nearby middle schoolers in math, or interviewing a panel of leaders on environmental issues. Over the past five years, Mr. Grunden led an interdisciplinary faculty team to expand and enhance the Flex Day program to guide students through a four -year metacognitive journey of self-awareness about their own learning. Relying on the work of

Thomas Kuhn and his *The Structure of Scientific Revolutions*, students examine historical eras with respect to social change to understand how those parallel developmental milestones in a student's life. Students study philosophy and examine social perspectives to learn to anticipate future social change and better adapt to an unknown future.

RCHS's innovative Flex program curriculum, aggressive educational goals, and focus on hiring strong teachers and creating an effective, supportive environment to grow and prosper as professionals, have been instrumental in the establishment of RCHS's national reputation - the school's ability to graduate 99% of its students and advance all of them into colleges and universities, many of them the most competitive. RCHS was the first high school in N.C. to be recognized as an Honor School of Excellence - at least 90 percent of students' scores are at or above achievement Level III, and the school makes or exceeds its expected growth goal. RCHS has achieved Adequate Yearly Progress, the highest honor for schools under the ABCs accountability model. RCHS has repeated this feat several times.

In 2002 Mrs. Blizzard and Mr. Grunden established the CSC, a successful science education non-profit designed to magnify and enhance the RCHS Flex Program offering similar experiences to a broader range of students. Mrs. Blizzard, the Executive Director, founded the CSC to 'open the doors' to the resources of RTP for students across N.C., changing their understanding of what STEM work is really like by experiencing real company developments. The CSC's mission was to have an impact on science education and nurture students' enthusiasm for STEM careers, as well as improving their understanding of core competencies in their standard courses. The Field Study program, a pioneer in experiential lessons, was launched by Mr. Grunden in 2004 after two years of research and development. Field Studies provide in-depth exploration in a day-long laboratory experience that intentionally augments the N.C.

Standard Course of Study in science and mathematics with contemporary science experiences created uniquely in conjunction with a local research partner company to reflect its work. The CSC provided a context and a narrative for the science research. Each lesson not only teaches course content in a novel way but also addresses the affective component of learning, giving students a truer experience of the way science is done with a particular emphasis on the State requirement Science as Inquiry. By the end of 2012, the CSC has served over 3,400 students from across N.C. with a yearly reported positive impact on all students served.

In 2010, we began to ponder how to expand the impact of CSC. Some of the leaders of the Board of Directors of Research Triangle Foundation, the RTP managing entity, suggested that we open a school to have a stronger and broader impact on STEM education. CSC began developing and transitioning into an innovative public STEM high school. RTHS will be a "lab" school that will use digital tools to model, prove, and scale new ways to educate to teachers and students statewide. Through RTHS the entrepreneurism, talent and resources of RTP will ultimately change the face of education in N.C.

RTHS's Curriculum and Instructional Practices.

RTHS will implement a quality educational program which will enable all students to meet and exceed challenging State student academic achievement standards. RTHS is designed to expand and improve upon the kinds of authentic, rigorous inquiry-based problem-solving experiences that RCHS and CSC have proven successful. We aim to determine how porous the wall can be between the school and the surrounding RTP, where the school will be located. The school will rely upon cutting-edge instructional techniques that blend online material of open educational resources and industry-based experiences. RTHS seeks to expand upon the RCHS Flex Day model and also develop student internship opportunities through its industrial and

academic partnerships giving our students the ability to becoming critical-thinkers and 21st century professionals. Expanding on the successful CSC Field Study model, we realized it is not sufficient to expose students to real-world STEM settings occasionally; this must be woven into the fabric of the instructional calendar and made to be a priority for teachers and students. Being a STEM school we aim to develop scientifically literate students that appreciate, understand, participate in, and contribute to society by helping students see the applications and the wonderment of science. At RTHS students will be able to recongize the relationship between science and their dialy lives, a healthy environment, and a productive society. We are mindful that citizens of the 21st century live in a global 'flat' world, and the humanities prepare us better than anything else to be thoughtful, open thinkers. We aim to develop a well-rounded student by offering a solid humanities curriculum including the arts and sports. Blending experiential learning with virtual content is critical to the instructional model at RTHS because of its ability to reach a broader spectrum of students and to be scalable to other schools throughout the state.

RTHS's education will offer college-prep course content built on the N.C. Common Core Curriculum and the *Framework for K-12 Science Education*. We expect that both teachers and students will challenge the limits of these structures. In order to graduate from RTHS, students must successfully complete all N.C. requirements college-prep course of study, including at least two consecutive years of a foreign language. RTHS will require four years of science for graduation which is above the N.C. requirement for science. RTHS believes that all students need to complete Physics to graduate as scientifically literate citizens. All students will be placed on a critical-skills learning path that is designed to guide them towards independent learning and hopefully to a senior year internship at an RTP company.

All RTHS learning strategies have been chosen with one objective in mind – improve student learning so that students can be successful in the work and college world ahead of them. To improve student learning (G.S. 115C-239.29A(1)), RTHS will use innovative and research based methods (G.S. 115C-239.29A(3)) as described below:

- RTHS will use the Flipped Classroom model, an innovative teaching methodology, in every subject to increase student contact time with instructors, releasing teachers to provide guided practice time and helping students to use time more effectively, including taking part in supplemental activities. The classroom is flipped so that content presentation is delivered outside of class during the traditional "homework" time while "classwork" becomes active and engages both teacher and student in individual meetings, small group instruction, and supplemental activities. This technique affords students much greater practice time with content and skills as well as engaging them socially in constructive ways during class in a way that best match their learning styles, schedules, and needs.

  The ideal learning situation is one teacher working with one student—the ultimate differentiated classroom. The problem is economics. With the advent of simple and cheap video recording and processing, copious online storage, and the prevalence of high-speed internet at relatively low cost, the one on one revolution is upon us. In the Flipped model content presentation can be achieved by students watching teacher made vodcasts which can be accessed from a website or downloaded to a digital device. Students can access this content any time, and as often as they wish, pausing and replaying instruction over and over again, properties not present in a live lecture setting, which happens once and is gone. This technique has been used by educational innovators and researchers like Jon Bergmann and Aaron Sams[4]

[4] usergeneratededucation.wordpress.com/2011/06/13/the-flipped-classroom-model-a-full-picture/

and by Dr. Lodge McCammon, the N.C. State's Friday Institute for Educational Innovation's Flipped Learning expert[5] who will be training RTHS staff on the most effective ways of using Flipped learning. RTHS will employ a 21st Century Media Specialist to assist teachers in making Flipped content. The utility of the flipped classroom for RTHS is obvious. It is a simple and low-cost way to bring quality instruction to all students regardless of location, ability level, or circumstances allowing students to learn at their own pace. It increases teacher-student contact time at little or no additional cost, staffing, or physical requirements

- RTHS will employ multiple methods of content delivery to better match student learning modalities. Examples include: A blend of digital and experiential learning; Project-based learning experiences in partnership with RTP companies; Online content from a spectrum of materials including but not limited to teacher-produced Flipped material, animations, and online courses. The 21st C. Media Specialist will assist teachers in making and locating this content and our partnership with N.C. School of Science and Math (see response to **III.4**).
- RTHS will ensure wide availability of content and resources through electronic media both on- and off-campus to maximize student contact time with learning materials.
- RTHS will measure student use of resources and match this data with student performance data to determine more effective means of instruction within the varied content presentation methods afforded students.
- RTHS will create Learning Teams to support students. These are learning-objective-focused groups of teachers and industry experts modeled on the Learning Teams practice from National Commission on Teaching and America's Future (NCTAF)

[5] http://www.fi.ncsu.edu/project/fizz/

- RTHS will infuse experiential learning into the curriculum to both reinforce and supplement the standard learning objectives by leveraging the school's public and private support base in and around RTP. Students will engage in applied science project work emulating the work going on at companies and universities in the area preparing them for the global workplace of the 21st century. RTHS will strive to provide RTP industry internships.
- We will explore school-based projects around central driving questions for all disciplines. In the fall we will center around the question of "Who Am I?". This theme will be explored with coming of age stories for English, original monologues in drama, comparative cultures in World History, DNA and genetics in Biology, and statistics about demographics in Math.
- RTHS will differentiate instruction in the form of content "playlists" consisting of teacher and student created presentations, discussion groups, wikis, open source courseware, digital video and audio.
- RTHS will differentiate learning in the form of student choice (with guidance) of content forms, scheduling (both time and place), and feedback from assessment that help match students' interests and needs better.
- RTHS will offer an extended school day (8am to 6pm) to provide students with increased content time and assistance and overcome transportation barriers.[6]
- RTHS will endeavor to provide more than one year of learning gains per year of instruction.
- RTHS will offer s summer 'Meet RTHS' camp during the 2nd and 3rd week of July. The camp is strongly recommended for all students. Students will be exposed to the type of learning they will be doing throughout the year. Students will take a math, literacy, and learning styles test so

[6] *Time Well Spent: Eight Powerful Practices of Successful, Expanded-Time Schools.* Report from the National Center on Time and Learning, September 2011.

teachers can be prepared to intervene on day one for students who need extra help. This camp will allow us to build community among students and create a culture of learning.

- RTHS will develop a Teacher Residency program. This program will evolve over the first five years from initial placements for new teachers, to inclusion of in-service teachers in our Learning Teams and culminate, as our expertise and relationships with NCTAF and UNC-Chapel Hill mature, into a full residency program for early-career teachers, preferably from rural districts across N.C. Residents will be able to learn RTHS methods in-team and in-practice, and return reinvigorated to their schools with new expertise and our online course content in hand. Resident teachers will be able to maintain their relationship with our Learning Teams, after returning home, through a program like the eMSS e-mentoring system.[7]
- RTHS will scale its innovative offerings to the N.C. educational community through its model of sharing its blended virtual and experiential learning, Learning Teams, and the teacher Residency program to achieve the school's mission of increasing access to a globally competitive STEM education.

The information technology requirements of RTHS's curriculum and program are very important. It is our intention to rely on a device-independent 'image' platform which will allow students to access the school's online content through any digital device, which they either already own or are provided, and have consistent content across all devices. This 'image' platform is available through both local State agencies (NCSU, WakeTech, MCNC) and commercial vendors. We intend to ensure RTHS is a 'One-to-One' school, so any student who enrolls without an internet-access device will be provided one. Pre-opening fundraising to support this all-student access is underway.

[7] http://www.newteachercenter.org/eMSS/menu.php?p=home

2. The extent to which the proposed project will assist educationally disadvantaged students in meeting State academic content standards and State student academic achievement standards

RTHS will increase learning opportunities for all students including expanded learning experiences for students who are identified as educationally at-risk, disadvantaged, or academically gifted (G.S. 115C-239.29A(2)). We will treat all children on an individual professional basis. RTHS will be able to meet the needs of a broad spectrum of students including students from disadvantaged backgrounds, English language learners, gifted students, individuals with disabilities, and other at risk students because of its unique school design. The academic model removes limits placed on student learning by time and space. The focus on Flipped learning and its application to differentiation, and the equal focus on experiential learning, are ideal for both students who are educationally disadvantaged and for those who are hungry for acceleration. The Flipped schedule and the extended school day will enable at risk students to have greater access to the school resources and direct student-teacher contact time, both online and in person. Students can access learning materials anywhere they are and at any time of day, as many times as they want. At risk students can loop through various forms of the same material over the course of the full school day or even revisit the content at a later date. A student who needs a review can always get one. It will be far more difficult to "fall through the cracks" as can easily happen in a standard classroom model where a non-existent 'average' student is taught and all students are expected to take what they can from that instruction. Differentiation, in the form of multiple content-distribution methods chosen by the student, will enable students to address content in ways more meaningful and efficacious for them. RTHS's learning method will also allow gifted students access to more challenging curriculum. All

students can engage in content that is at their level. RTHS has engaged resource support from local universities and learning institutions, such as Wake Technical Community College as a source for technical STEM courses delivered online to our students as a way to accelerate the progression of more advanced learners into an Early College-like program.

RTHS will provide assistance to students that are not performing at expected levels to ensure the continued progress of student growth. Students will be identified by a pre-matriculation assessment to determine if they are at risk of not progressing in college-prep material or meeting State academic content standards, and Teacher Learning Teams will analyze all formative and summative data, and all rubrics and observations, to regularly assess which students are not performing at expected achievement levels, defined as learning college-prep material at a level and depth needed to progress to the next high school course and on into college-level material. Identified students will progress through a pyramid of intervention. RTHS will have on-staff certified Exceptional Student Education and LEP faculty members that will work with classroom teachers to assist in modifying the curriculum for identified students, support IEPs, develop learning strategies with the students, and meet with parents and teachers.

Students' work will be discussed by their Learning Teams, and students will be reassigned and regrouped to address their learning gaps. Their playlists may be revised to better address their learning needs. The blend of Flipped instruction at their individual disposal, and experiences with their classes, teachers, and peers, are all designed to be flexible enough for students to be guided through this pyramid of intervention such that they experience this not just as intervention but as truly *learning how they learn.* All students will have at their disposal the resources of the campus throughout the entire day from 8am to 6pm – enabling additional time with their teachers, the opportunity to re-visit a lecture or group experience, and/or the time to

revisit their Playlist of learning materials, to be mentored by other students and STEM professionals and volunteers in the central Café. The design of the school will keep these students from being seen as exceptional. These systems of intervention will enable great differentiation of learning for all students across the spectrum, enabling constant regrouping and reassigning of students.

See our response to Competitive Preference Priority 1 for details on RTHS's plan for accelerating learning and assisting English learners (**I.1(i)**), high-needs students (**I.1(j)**), and students with disabilities (**I.1(h)**) in meeting State academic content standards and State student academic achievement standards inclusively (**I.1(l)**).

3. The quality of the strategy for assessing achievement of the charter school's objectives

RTHS's mission is to ***increase access*** to globally competitive STEM education for students and teachers across N.C., by ***incubating, proving*** **and** ***scaling innovative models of teaching and learning.*** To evaluate our effectiveness with respect to our mission, we will assess each of the proposed points in our mission.

Increasing Access: Our first program evaluation will center on the school itself and our ability to increase access to a strong education for the students physically enrolled at the school. We will examine measures like full enrollment each year, student performance on End-of-Course tests, diversity of the student body, and numbers of students on the waiting list, as indicators that our model is successful locally and that demonstrate demand for our educational programming. We will also look at students' advancement through coursework over their four years at the school, to assess whether students are accelerating in their learning across more than four years of material. Our ability to track students from their first pre-test through final performance in senior year will be critical to this overall program evaluation. Attention will also be paid to

student transfers out of the school, and we will develop a list of standard reason metrics for transfer in order to attempt to capture any attrition effect.

***Incubating*:** In order to evaluate our effectiveness with respect to incubating innovative models of teaching and learning, there will be a yearly report on the overall progress of our programs (Professional Development (PD), teacher Residencies, new Flipped content development, Learning Teams, etc.) to the Board by the School Leader. The School Leader and faculty will be expected to continually self-examine their effectiveness and annually reflecting upon, improving and summarizing their thoughts on their internal programs. This evaluation will help in the evolution of these programs and to meet changing student and staff requirements. At RTHS, we strive to continually explore, test and develop new programs, both student, staff and teacher-oriented; therefore these new developments will be evaluated as they come through the school.

Proving: A number of methods will be used to prove that our innovative models of teaching and learning are effective. First, RTHS will maintain a database that collects information on student plans after graduation, which may include numbers of students accepted to college, which colleges, and how many are pursuing STEM programs. This is critical as one of our first goals for student achievement is to produce literate graduates ready for college through an innovative, college-preparatory curriculum. Second, at RTHS students are preparing for the 21st century workforce; therefore, numbers of students accepted to internships, how challenging the internships are and where they are located will be collected. In order to assess whether student's learning has been accelerated such that they cover more years of material in their four years of high school we may employee software such as the Education Value-Added Assessment System (EVAAS) to track student achievement. Formative and summative assessments will be measured

for each student. Student assessments will be critical to assessing whether the innovative methods, tools and experiences being used at RTHS are indeed effective ways of teaching that should be scaled to other teachers and schools statewide. Another method to prove that our model is working is to track the change in the number of STEM volunteers from RTP each year. An increase in volunteers working in our Learning Teams may indicate a growing interest and appeal. In addition, by tracking the change in the number and types of support (e.g. financial, offering internships, partnerships) from corporate, non-profit or community groups, may indicate trends in their commitment to our mission and the value that they see in it. A fifth measurement for effectiveness of our programs will be to measure our programs against the upcoming State N.C. State Board of Education (SBE) STEM attributes. It is our goal to achieve the highest ranking on that emerging list of attributes for a STEM program.

Scaling: We will track the number of teachers from outside our faculty involved in our school – in-serve placements, new graduate placements, teacher Residents from across N.C., and teachers attending any workshops we hold. We will endeavor to follow these teachers and evaluate not just the numbers of teachers who come through our programs but how they make use of their time at RTHS in their own classrooms, the impact that their time with us has had on their pedagogy and their students. We will also track the involvement of teachers post-PD in our virtual Learning Teams, both for depth and longitudinal involvement. We will use online data to track the usage of our evolving online OpenSource course content as a measure of the adoption of our material by a broad constituency, keeping data on the visits to and download of that material via analytics. After three years, if funding permits, RTHS may contract with an interdisciplinary team from local universities to conduct a program audit. This 360-degree review by an outside university team would be invaluable to determining the school's overall

effectiveness both internally and externally and will be prioritized in the Development plans of the school.

Assessing RTHS Student Achievement

It is our intent to mix rigorous, reliably constructed external instruments with informal classroom-level evaluation so as to develop a reliable model for accurately predicting and assessing student growth and achievement. The objective for student achievement at RTHS is two-fold. One, we wish to accelerate learning for all students, such that they cover more years of material in their four years in high school, whether they enter behind or vastly ahead. Two, we strive to prepare students for the 21st century workforce by instilling in them the skills and habits of thinking that our global companies are seeking. This requires us to guide young people to become independent, innovative problem solvers. To that end, we have a series of goals for student achievement:

Literate graduates ready for college: All students to move through a rigorous, college-preparatory curriculum, measured in somewhat traditional formative and summative ways such as the State given End-of-Course (EOC) exams. All students need to learn the Enhanced and Expanded Common Core & Essential Standards for each subject in order to graduate as educated, college-ready young people.

Independent self-learners: The Flipped model and our use of digital content delivery allow for teacher feedback to students every single day. Each student will evolve from being a teacher-directed dependent learner to an independent, self-guided one. Students will be started on their Flipped courses with structured expectations for material they must cover, and guided gently - some quickly, some more slowly – to making their own choices about how they can best learn required ideas and concepts. All students will be moved along this continuum over their four

years. This movement will be measured by monitoring and tracking their usage of online Flipped material and comparing that to performance on formative and summative exams. The RTHS Learning Management System (LMS) will supply the data for teachers to track this movement. Playlists allow students to get multiple pathways or approaches to the same content, allowing them to assess 'what they know and don't know', giving personalized feedback. Students will also be monitored for their performance in peer mentoring, demonstrating their ability to *teach* and to *do* what they have learned. Students and teachers will track progress through online materials and discuss during weekly conferences.

Critical thinkers: All students will be guided to develop strong critical thinking skills. Their advancement along this path will be measured by rubrics that will delineate expectations on the scale from non-mastery to exemplary. RTHS's special focus on Flipped learning will specifically allow teachers to observe, guide and develop students' thinking, group and collaboration skills. These skills will be developed and looked for in the classroom, labs and group activities that take place between teachers and students through conferences. Each student will generate product portfolios that show growth in more difficult to assess skills, including professionalism and the 21st-Century and New Basic skill sets. A qualitative, holistic demonstration of growth in these skills will indicate success in our methods. These products could be paper documents, video clips, publications, tests, or any number of potential created items that could be archived. Current research, including the FIZZ program[8], supports student-produced videos as reliable indicators of growth on this scale.

Professionals: It is our hope that all students can advance into RTP internships, be they in science research, marketing and communications, or business office skills. Students will be

[8] http://www.fi.ncsu.edu/project/researchers/lmccammon

guided and assessed by rubrics in their readiness to undertake this off-campus experience. By senior year, a student should have progressed through a series of higher order experiences that showcase a portfolio of these professionalism skills. These assessments may include evaluation of: maturity, honesty, adaptability, initiative, confidence, enthusiasm, time management skills, problem-solving skills, accomplishments, intellectual independence, analytical ability, team or individual work, class contributions, leadership, organizational skills, and expression of ideas (verbal and written). These will be done by self, peer and teacher assessments.

RTHS will be accountable for meeting measurable student achievement results. See the response to **III.8** for more details about how RTHS will utilize the State adopted performance-based accountability system to ensure at least a year's growth in learning for all students as a minimum standard, with the goal to advance most students five years over their four years at RTHS. During the school year, formative assessments will be given throughout the learning process in order to benchmark student learning and immediately intervene and redirect each student's learning pathway. Quarterly summative assessments will also be administered, to afford students the opportunity to review and embed learning from the grading period. Assessments will allow help teachers adjust instruction in response to student learning needs. To better align with the Common Core, we plan to model testing on the draft standards offered by the SMARTER Balanced coalition so that our local assessment is consistent with state and national efforts toward improving assessment quality. Advanced Placement scores will be considered indicators of college-prep success. All students will be prepared for a college experience on the spectrum from local community colleges to highly selective universities.

Students will be assessed at their entry to the school, and multiple times throughout their school career, to determine various components of their learning styles building a "learning

personality" for each student that addresses the cognitive and experiential components of the student's learning modality. This information will be readily available to any teachers to help in diagnosing learning/content mismatches. We recognize that these change as the student learns and grows; therefore, repeated measures would be needed.

Every student will take a pre-matriculation subject assessment at the beginning of the course to determine what skills the students have and what gaps there may be in their learning. These pre-tests will allow RTHS teachers to differentiate and accelerate instruction for each student. This pre-test will be used to design an individualized path for each student through either:

- Material that will close student gaps in being prepared for a college prep high school, including more time on material and more time with their teachers, *or*
- Accelerated material that will challenge and expand on the student' needs.

At the end of the school year students will take the same assessment allowing teachers to truly gauge individual student progress and growth. We will contrast this with the performance composite provided by the state to see how we are meeting our school-level goals of improving each student. Success will be indicated by each student showing individual growth and help us demonstrate our goal of providing more than one year of instruction per year of school.

The Flipped Teaching Model has been chosen specifically because it frees up time in teachers' days to work more closely with students. To expand upon this model, feedback for students will come through several venues in the form of a "net" of interventions:

- The Flipped model facilitates daily individual teacher feedback on student work.
- RTHS is committed to making student progress records, including grades, accessible through the LMS for parents and students to view so as to support complete transparency.

- We will make all assessment data accessible to all teachers via our LMS, insofar as is allowed by law, so teachers can compare these more rigorous data with informal assessments in-class. Teams of teachers will review student progress to regularly determine which students are not performing at expected achievement levels. All students will meet weekly during their daily study hall with a teacher advisor to receive ongoing feedback.
- In study halls and in class, students will also have opportunity for peer-to-peer instruction, allowing instant feedback.

Assessing RTHS faculty and staff effectiveness and achievement

All employees, both staff and faculty, will be evaluated annually by the School Leader or the A&P Leader, depending on their reporting manager. Evaluations for faculty will include feedback from the Learning Team sessions, regular observations and reflection meetings, and results of the students on their progressive assessments. Staff will be evaluated on performance based on job expectations, descriptions and objectives. School leadership will be evaluated based upon their annual goals and objectives by the Board of Directors before June.

To compare teachers' current performance to where we want them to be, we will continuously collect data. This will be done a variety of ways, allowing for the most thorough analysis of current PD. Based off of models used by Teach For America, this data includes (but is not necessarily limited to):

- **Student Achievement Data:** First and foremost, the effectiveness of teachers will be based on student performance. Some of this achievement data will be based on state standardized tests, however this is not the final bar. Staff will work with teachers to develop benchmarks, with a requirement of at least two meetings per semester. This will provide data that will allow us to best support teachers in helping their students master content.

- **Teacher Performance Data:** Additionally, we will develop a rubric for effective instruction, analyzing areas such as planning, execution, investment, engagement, etc. This will help us break down for teachers what effective instruction looks like, and help them focus their individual PD in the areas they most need to grow. This is based on Teach For America's 'Teaching as Leadership' rubric[9].
- **Teacher Satisfaction/Opinion:** We recognize that our master teachers come to the table with a plethora of experience. We will rely on their leadership for feedback, thoughts and suggestions related to staff PD, and for mentoring in Resident Teachers program.

By collecting data in these three areas, we can analyze the intersection of all three to do as much as possible to constantly improve our staff PD, allowing the largest impact on students and their achievement.

4. The extent of community support for the application

RTHS has tremendous community support from surrounding corporate partners, educators, and parents throughout the Triangle. We can only imagine that this support will become more extensive as RTHS moves deeper into the planning, program design, and implementation stages and begins to demonstrate student and curriculum success.

The initial idea to develop RTHS was suggested in 2010 by some of the key leaders of the Board of Directors of Research Triangle Foundation (RTF), the RTP managing entity, in order to have a stronger and broader impact on STEM education in N.C. In September 2011, RTF provided a grant of $50,000 for planning. To date, RTF has continued to support the project

When developing the RTHS Charter we brought together a team of community educators from RCHS, East Chapel Hill and Enloe High Schools, KIPP Gaston College Prep, Teach for

[9] http://www.teachingasleadership.org/execute-effectively

America and UNC-Chapel Hill's School of Ed. These innovative individuals volunteered their time and came together to advise and define RTHS's purposes, drawing on their deep experiences and broad backgrounds to create RTHS, a next generation charter school (see attached **Faculty Development Advisors Biographies**).

The CSC Board represents a wide variety of influential members of the community demonstrating the extent of our support. See attached **Board of Directors Biographies** and response to **III.6(2)**.

From the 2010 inception to submiting our charter application in the fall of 2011, we held many meetings with key companies and individuals in the community to talk about the proposal of RTHS and ascertain the level of public interest. All gave many helpful, insightful suggestions and shared their enthusiasm and interest in the furthering of the idea of a STEM school joining the RTP community. (see attached list of **Community Meetings** for details).

From these meetings we developed the vision and mission for the school, moving from a mere idea proposed by RTF to our concrete Charter. In addition, we collected letters of support from Research Triangle Foundation, Biogen Idec Foundation, N.C.School of Science and Math (NCSSM) and UNC School of Education (see attached **Letters of Support**). The extent of our partnerships with each of these organizations is decribed below. Once RTHS's Charter was approved in March of 2012, we have increased the support for the school and its programs. To date we have discussed and/or begun developing programs of involvement with local companies Cisco, Lenovo, Eaton, Syngenta, the UNC graduate school's Training Initiative in Biological and Biomedical Sciences, and NetApp. These organizations have expressed their interest in supporting the new school by providing or donating capital, volunteer time, or developing projects with RTHS.

Extent of the Partnership with NC School of Science and Math (NCSSM)

NCSSM will support RTHS by:

1. Locating, developing and curating digital content: While there is much open content available online, there are gaps, particularly in the STEM disciplines. RTHS will identify those gaps and work to fill them, creating a full open sourced curriculum featuring real-world relevant experiential activities drawn from the Research Triangle business and research community, and contributing uniquely to the existing Open Education Resource (OER) collections. This partnership will allow NCSSM will broaden the scope of its digital content development to include 9th and 10th grades and add new research-based learning module formats.

2. Connecting students to the STEM world: A critical focus for RTHS's curriculum will be the using applied science from RTP STEM professionals in the classroom. In collaboration, NCSSM and RTHS will determine how to effectively digitize these traditionally hands-on experiences such that they can be shared. Interviews with scientists and professionals, video capture of labs, development of animations and graphics, or creation of virtual environments where students and STEM experts meet – allowing for full immersion of students into a STEM community. The combination of NCSSM's staffing and expertise will be combined with RTHS' creativity, innovation, and relationships with RTP industry.

NCSSM brings over a decade of experience in designing instructional content including video classroom capture, HD lab capture, animations, images, photos, documents, graphics, and green-screen graphics for video production. By sharing all of this material online at both schools, and eventually in national OER collections and the state's learning object repository, the aligned outreach missions of both schools will be realized, effectively providing a window for anyone with internet access to "see" into both schools. Clearly, the goals of RTHS and NCSSM

are aligned. There is great potential for contributing to the growing collection of quality teaching and learning activities. Resources to support this collaboration will facilitate the opportunities mentioned and extend the reach of both schools by building upon existing and planned capacity and resources, particularly in the areas of research and mentorship.

Partnerships with Biogen Idec Foundation & Research Triangle Foundation (RTF)

Biogen Idec Foundation supported the CSC from its inception. The General Manager of Biogen (at that time) wrote one of the first checks that helped launch the CSC, and six years later the Foundation made the $60,000 Sponsorship gift that built the CSC Teaching Lab. At the same time, the RTF supported the CSC programs with a significant three-year $35,000 gift. In 2011 Biogen Idec Foundation made a sustaining $50,000 Challenge Grant to CSC to initiate the planning year for RTHS. This Challenge was met by RTF again. Together these two entities have been foundational in the planning and formation – and therefore launch – of RTHS.

Partnership with UNC-Chapel Hill's School of Education

UNC- Chapel Hill's School of Education's Dean Bill McDiarmid met with RHTS founders in early 2011, and indicated early support for this project with the establishment of Education School outreach liaison Mrs. Horner as an RTHS Board member. Education professor Dr. Catherine Scott and Mrs. Horner contributed to the design and writing of the charter application. Discussions about partnerships have centered on in-service training for impending education graduates, and the prospect of including those student teachers in RTHS Learning Teams. This coming year will allow for the planning of this program partnership as RTHS concretizes faculty and their status as certified mentors for in-service trainees is known. In addition, UNC has an outreach arm called LEARN NC, an online professional development, curriculum and courseware portal. RTHS is partnering with LEARN in order to locate the RTHS LMS there, as a

way to be in constant contact with these UNC experts and their global outreach arm for educational materials.

Informing the community about RTHS

Marketing to the community is vital to the survival of RTHS. Reaching the full capacity for enrollment is critical to obtain the necessary financial resources to keep RTHS viable and operating efficiently. In addition, RTHS will provide equal access to all students to mirror the diversity of the local education agency (State Statute G.S. 115C.238.29F(g) (1-7)). RTHS will provide all parents and students with expanded choices in the types of educational opportunities that are available within the public school system (G.S. 115C-239.29A(5)).

RTHS has a multi-level plan to inform the entire Triangle community about our existence. Each year the school will launch an extensive public information campaign that includes: press releases to print, online, and radio outlets; a school website and Facebook page; job websites and open houses for potential teachers/staff; recruitment flyers to middle schools, public libraries and community centers; and media interviews. Our marketing materials will be in both English and in Spanish. RTHS will build on already established relationships with area educational organizations, research collaboratives, and corporate partners. Specific targeted communications will ensure that information about RTHS goes equally to families in traditionally underserved communities as to those easily reached by mass communication. Each year in the fall the School Leader will present to the Board the statistics for the newly enrolled school population. Based on that information, the Board and school leadership will modify the plans for school marketing communications and recruitment events and plans for the coming winter. These efforts will ensure everyone is provided the same opportunity for school enrollment. RTHS admits students without regard to race, sex, disability, color, religion, or national or ethnic origin.

5. The extent to which the proposed project encourages parental & community involvement

RTHS will offer the students, teachers, and parents in the Triangle communities an innovative and quality education expanding their choices in the types of educational opportunities that are available within the public school system. In order to be successful, parents and the community are encouraged to be involved in our planning, program design, and implementation.

RTHS is intentionally located in the middle of RTP so that its instructional program can include community scientists, engineers, Information Technologists and others – including parents – as volunteers in the Learning Teams and experiences of the schools. RTHS will bring RTP community resources into the school as lab volunteers, podcasters and interviewees, scientific experts, Café mentors and problem solvers, makers of digital content, and as many other ways as we can. The Learning Teams model is designed to include all of these individual community resources into the instructional teams so that all of their vast expertise can be brought to bear on the learning needs and objectives of the students.

During our planning, a parent community of middle-schoolers supported the development of RTHS. These parents were looking for a stronger STEM education for their children, some of whom are interested in developing a stronger education system for all of N.C. Current parents of enrolled students have formed a volunteer force and are helping to research, design, and implement some of the programmatic aspects of the school, including transportation and food service, marketing and communications, IT, procurement, governance, personnel, and research into varied national STEM programs. This core community is excited about RTHS becoming a model for educational innovation beyond their own family needs and will form the core of the parent volunteers who will join and expand upon our efforts as RTHS evolves and matures.

The philosophy of RTHS is to include authentic resources in its curriculum and instructional methods, be they scientists, parents, or community members. In addition, parents are considered partners in their students' learning and will be encouraged to participate in their child's education. Their participation in both the learning and the success of the school are critical. Parents with experience in this level of involvement will be recruited, and parents without this experience will be courted and encouraged to become involved in ways that fit their family circumstances. The school will be open to a wide variety of contributions from the full spectrum of parent abilities. To help facilitate this, each parent will have open access to their child's achievement data to track their success in real-time.

6. Quality of project personnel

(1) The extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability

Our leadership team is committed to hiring people who represent the broad diversity represented by the Triangle region, including members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. We have worked to ensure that applicants of color are actively recruited and encouraged in the interviewing process, and have worked to ensure that the faculty reflects our student body. We will continue to advertise our open positions through job websites that are well known to all potential teachers. Each year in the fall the School Leader will present to the Board the overall make-up of the faculty and staff. Based on that information, the Board and school leadership will modify the plans for subsequent faculty and staff recruitment.

RTHS will not discriminate or deny access to employment opportunities on the basis of race, color, religious creed, national origin, ancestry, sexual orientation, disability or handicap (42 U.S.C. § 2000(c)-(d) (Title IV and Title VI)). RTHS will abide by the N.C. charter school legislation, G.S. 115C-238.29F(g)(5). In addition, under section 504 of the federal Rehabilitation Act of 1973, no otherwise qualified individual, shall solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of or be subjected to discrimination under any program or employment opportunity at RTHS. When hiring teachers, RTHS is following the Federal standards for Highly Qualified teachers. A Baccalaureate degree or higher and proven experience/aptitude in the subject(s) being taught will be required.

(2) The qualifications, including relevant training and experience, of key project personnel

We have brought together a strong team of experienced people to open and run RTHS. RTHS's Executive Director and A&P Leader, Pamela Blizzard (see attached **Blizzard Resume**), led the founding, opening and initial years of Raleigh Charter High School 13 years ago. Ms. Blizzard managed the finances and policies of the RCHS enterprise. By 2001, she was consulting with area charter schools on Board training and financial management issues. She has opened and run the CSC as a science education non-profit for the past 8 years. In both endeavors she has successfully implemented quality curriculum. This year, as N.C. has at last lifted its limit on new charter schools, she successfully shepherded the application for RTHS through the chartering process to be one of the eight new charters to open in many years in N.C.

RTHS's Chief School Officer and Principal, Eric Grunden (see attached **Grunden Resume**), has been at RCHS for 12 years, and has led several academic non-profit ventures. Mr. Grunden joined the faculty at RCHS in 2000, in its second year of operation, where he became a key member in implementing a cutting edge and rigorous science department. He currently

serves as the science department chair and teaches Chemistry, AP Chemistry, and Astronomy. Mr. Grunden assisted Mrs. Blizzard in opening the CSC and defined the science focus and curriculum for this successful non-profit. In 2010 he was named by the RTP chapter of Sigma Xi as Outstanding High School Science Teacher, and in 2011 was named a finalist for the prestigious Presidential Award for Excellence in Math and Science Teaching for N.C.

Together their experience in launching new ventures is very strong. Mr. Grunden's deep knowledge in instructional leadership is profound, and Mrs. Blizzard's has very strong leadership skills in establishing a successful charter school and science education non-profit. Together Eric and Pamela will be leading this new school – Eric focused internally on educational leadership and Pamela focused externally on partnerships and outreach. (See the response to section **III.1** for more details about RCHS, CSC, Mrs. Blizzard, and Mr. Grunden)

RTHS's educational plan was crafted by a team of influential community education advisors - master teachers in the region with whom we have worked for many years successfully implementing innovative curricula bringing the full weight of a strong community to assist the birth of RTHS. In August 2011 the team began to brainstorm, define and outline RTHS's design and charter proposal. These teachers brought their broad backgrounds from RCHS, Enloe and East Chapel Hill high schools, 3 of the highest performing schools in the state and from KIPP, Teach for America and YE Smith school in Durham, having served in some of the lowest performing schools in the state and UNC-CH School of Ed. (See attached **Faculty Development Advisors Biographies**)

The CSC has had a Board of Directors as a science education non-profit since opening in 2004. In January 2011, the Board began to recruit new members to address our need to become a founding school board. We sought and found new members to target the critical 'new school'

areas of facilities from York Properties, IT from IBM, teacher professional development from UNC School of Education, and the school choice movement in Parents for Educational Freedom. CSC's Board members reflect the ability to operate a charter school from both business and education perspectives and has a track record in managing and leading a successful science education non-profit (see attached **Board of Directors Biographies**). Board Chairman **Gerald R. McCrain, Ph.D.** *VP, District Director, Atkins Global,* founded and matured his own environmental services company, EcoScience, eventually selling that company to Atkins Global's predecessor. Dr. McCrain brings strong small company, corporate and engineering management and entrepreneurial skills to the leadership of the CSC Board. **Rich Cohn, Ph.D**. *Senior Principal and Director, Health Sciences Research, SRA International, Inc.,* is Board Treasurer and a statistician by training. Dr. Cohn's expertise with data and ability to understand, evaluate and communicate statistical information is proving invaluable as RTHS moves into the phase of setting clear metrics for measurement of its success and adopts both state and national accountability standards. Board Secretary, **Mike McBrierty, M.P.P.** *Manager, Public Affairs, Biogen Idec,* CSC Board Secretary, leads many of the corporate partner introductions, conversations and relationships for RTHS, as does **Karen Ondrick** *Program Director, Community Relations, Lenovo USA.* Karen and Mike also bring their corporate contributions to RTHS's sustainability efforts, Mike representing the Biogen Idec Foundation and Karen the Lenovo product contribution side. **Craig A. Nygard, B.S.** *Senior Technical Staff Member, IBM Academy of Technology* is a strong IT strategy-setter and leader, who is leading the school's IT planning and staff -&- volunteer team from behind the scenes. **Darrell Allison, J.D.** *President, Parents for Educational Freedom in North Carolina,* is a statewide leader in the charter school policy and political arena, bringing deep skills for the school to understand legislative and N.C.

SBE charter directions. **Martinette Horner, MSA** *P-12 Distinguished Educator in the School of Education, UNC-Chapel Hill,* is a former school Principal now on staff at UNC School of Education for in-state N.C. outreach. Mrs. Horner has been instrumental in the hiring of the RTHS Principal, contributed greatly to the writing of the charter application, and is embracing future CSC Board leadership paths. In addition, she handles liaison relationships from RTHS to the School of Ed faculty and programs. **John Kerr, B.S.** *President, York Commercial,* was one of the founding CSC Board members eight years ago, and rejoined the Board this year to manage the facilities procurement for the school. In 1998 Mr. Kerr brokered the deal for the original RCHS site, RCHS's move to its own purchased facility in 2011, along with several other charter schools over the years. Mr. Kerr has been instrumental in finding the location for RTHS and brokering the contract and deal with the developer.

The CSC has a track record of sound Board governance and strong fiscal management. The Board has a stringent Conflict of Interest Policy for board members and a stated commitment to the N.C. Open Meetings Law. (G.S.143.318.9 et seq). The CSC began in 2002 at the end of one recession, and has grown through a second recession over the past four years. In all of that time, the CSC has never run a deficit nor failed to meet payroll or vendor commitments. The CSC Executive Director and Board members have always maintained a strong commitment to managing the Center with the money in hand, staffing for the level of revenue in hand, and being able to offer programming within the budget as it exists.

Support for the innovations being implemented at the school are coming from the NCSSM's Distance Learning Technology Team (see attached **NCSSM Letter of Support** and response to **III.4**) to help deliver digital content, and the Friday Institute for Educational Innovation's

Flipped Learning expert, Dr. Lodge McCammon to train staff on the most effective ways of using the flipped learning technique.

RTHS is almost done with the process of hiring its core of creative and knowledgeable teachers to begin implementation of RTHS's innovative programs and curriculum. Candidates attracted to RTHS are proving to be equally innovative and experienced, and we are excited at the caliber of people we are able to hire. We will complete hiring our faculty for our opening by July 2012. Each year as we continue to add new grades, we will assess our faculty and hire accordingly. We sought and are attracting faculty and staff applicants that are kind, caring individuals; smart, well-educated in their fields; have the ability to deliver quality instruction; entrepreneurial focus to their teaching in order to adopt Flipped, online and experiential models; have the willingness to learn to work in Learning Teams and share their abilities with others at RTHS and across the state

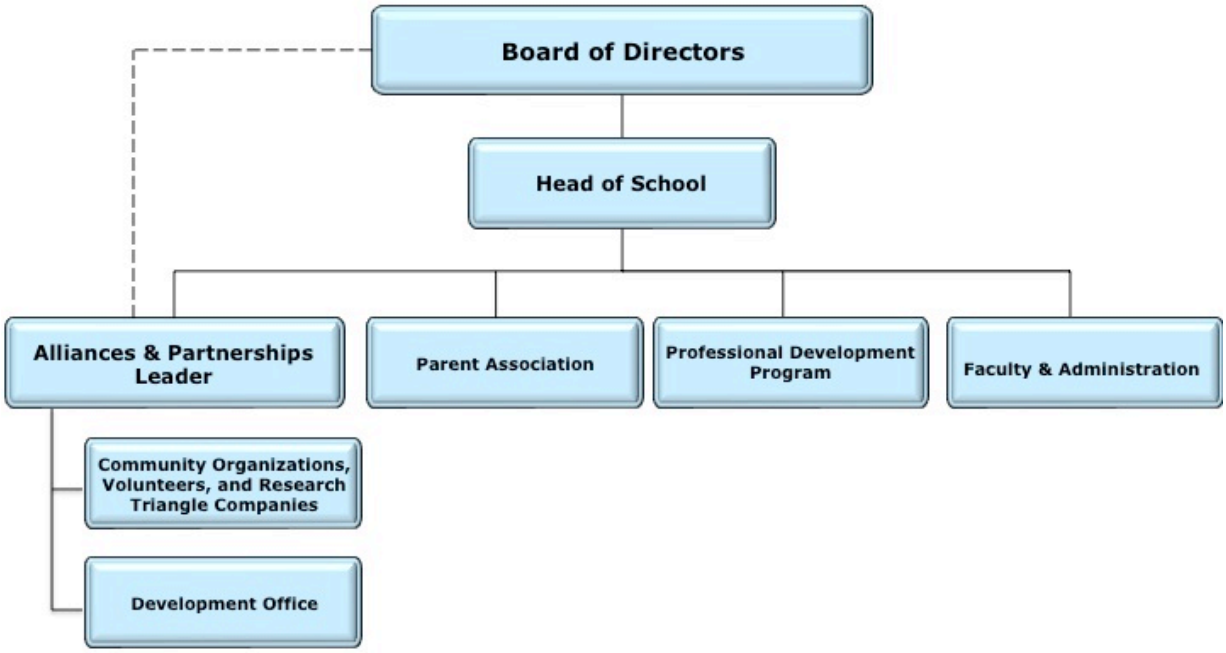
To date, we have hired core faculty members that have experience in effective curriculum development and implementation in their subject area and are comfortable technology and creating video libraries. See attached **RTHS Faculty Resumes**. English – Deborah Brown and Ian Finley (two sections English, three sections drama); Biology – Dr. Lara Pacifici and Dr. Amanda Marvelle (two sections biology and 21st Century Media Specialist); Math – Melissa Young; History – Alex Drake; Physical Education & Health – Richard Jowers

7. Quality of the management plan

RTHS has a balanced budget plan, which was submitted to the N.C. SBE in its charter application. That budget is, obviously, a very stripped down, lean approach to starting the school. These non-SEA grant funds would enable the school to invest strong financial support for the additional faculty time, unique support positions in PD and digital media, and IT resources and

equipment needed to accelerate the school's work in achieving its goals. By year four, it is planned that these start-up needs in time and equipment will have been met, and the school will be at an even run-rate, fully funded by the state, local and federal funds available to all N.C. charter schools. Another contributing factor to successful continued operations once the grant has expired is that, as enrollment grows to full size in year four and state-and-local revenues increase accordingly, RTHS will reach the economies of scale attained by having full enrollment. These economies of scale will enable RTHS to support the unique positions in PD and digital media from its annual budget, and to invest much of what has been needed in IT. Economies of scale at full enrollment will contribute greatly to continued operations being fully funded.

RTHS is a well-defined organization with the structure, capacity and a quality management plan to implement and administer the proposed work of our Charter. RTHS will achieve its mission of 'increasing access to globally-competitive STEM education' for students and teachers across the state in two complementary ways. The school will have both an internal focus – offering an excellent education for the students physically enrolled at the school – and an external focus on incubating, proving and scaling its programs statewide. The Chief School Officer (Head of School), Eric Grunden, will be responsible primarily for the internal functions and success of the school, and the A&P Leader, Pamela Blizzard, will focus on external relations with RTP companies, outlying school districts, and developing the broad constituency of support for the external focus. The A&P Leader will have some dotted-line responsibility to the Board of Directors. All programs and positions that support teachers will be the responsibility of the Chief School Officer. The Parent Association is a school-based organization, not a committee of the Board, and is encouraged to build its strongest ties to the Chief School Officer and faculty in order to support RTHS'S mission and students' needs. In the figure the non-profit corporate



structure is represented by the top box and includes the Board of Directors and its officers and committees. All the other boxes represent the school structure.

The Governing Board will be responsible for ensuring that the academic program of RTHS is successful, the program and operation are faithful to the terms of its charter, the school is a viable organization, and ensure that RTHS is not drifting away from its original purposes to ensure all students are achieving at the highest levels. See the response to **III.6** for detail on the make-up of the people on the Governing Board. The Board created and will periodically review the mission statement, which will serve to guide the organization, Board and staff decision-making, volunteer initiatives and setting priorities. The Board is organized such that the school program leadership and the parent community have direct and indirect input into the governance of the school. The Board is responsible for selecting the Head of School and for continued support and review of his/her performance.

The Board will ensure effective organizational planning such that it includes concrete, measurable goals consistent with the Charter and accountability plan. The Board will ensure adequate resources by supporting and approving fundraising targets and goals and carrying out the development plan. This will include the management of resources effectively by approving

the annual budget, reviewing financial reports, approving accounting and personnel policies, provide for an independent annual audit by a qualified CPA, ensure adequate insurance is in place to cover students, staff, visitors, the Board and the assets of the school. The Board will determine, monitor, and strengthen school programs and services so that they are consistent with the mission and charter. This will include approving of measurable organizational outcomes, approving annual, attainable Board and management level goals. The Governing Board will also enhance RTHS's public standing by serving as ambassadors, advocates, and community representatives of the school. The Board must also ensure that no Board member represents her/himself as speaking on behalf of the Board unless specifically authorized to do so. The Board will provide for a written annual report and public presentation that details RTHS's mission, programs, financial condition and progress made toward promises and goals outlined in the Charter. The Board must ensure legal and ethical integrity and maintain accountability by establishing policies to guide the school's Board members and staff and develop adequate personnel policies and procedures. The Board must adhere to the provisions of the school's bylaws and articles of incorporation, which will include adhering to local, state and federal laws and regulations. The Board must also recruit and orient new Board members, a process that includes defining Board membership needs in terms of skills, experience and diversity.

The RTHS governing Board attends carefully to the boundaries between school management and Board governance. School policies, which are core to the daily running of the school, are established first by Board-level discussion, with a small team of Board members and the school leader assigned to draft new policies as needed. The Board secretary, attorney(s) on the Board, and outside counsel if needed, reviews this draft. New policies are extensively reviewed by the school leader to ensure they fit in with that leader's implementable vision and

operations for the school. The back-and-forth review between Board policy team and the school leadership are key to the successful governance and management of the school, with the Board ensuring core values and principles of the vision of the school are articulated, and the school leadership ensuring policies would be operationalized and have the impact that the Board envisions. All final policies are reviewed and voted upon by the full Board.

RTHS will be ready to launch the school in Fall 2012. We will continue planning, program design, and implementation over the next 4 years as we grow from 160 9th graders in 2012 to 420 students in grades 9 through 12. We have many milestones between now and RTHS's opening in August of 2012 to make sure that we are ensuring success. We will continue to expand on many of these milestones as the school grows and we implement our design to make sure that we are meeting our objectives.

Milestones	Requirement/Status	Due Date	Responsible
Facility	Facility ready for move-in	1-Aug-2012	Pamela Blizzard, Contractors
Status:	We have found a perfect location for the school, a very large, open unused retail strip in RTP. The site is locally owned by a major regional developer, Craig Davis, who is excited about the vision for the school, and at the opportunity to create an anchor tenant for his site.	Architectural Plan, Permits, Construction Dwgs, & Project Timeline are contracted for and in process.	Craig Davis Development, JD Beam Construction, ADG Architects
IT	IT ready for teacher & student start-up	1-Jul-2012	Pamela Blizzard; Craig Nygard
Status:	**Network:** MCNC and N.C. DPI will provide the WAN access and content filtering through Time Warner Cable	1-Aug-12	Craig Nygard, IBM & Corporate Volunteers at

	(TWC). Planning installation has commenced. Cisco will help with the school network design and assurance. **LMS**: We plan to have our Moodle LMS hosted by LEARN NC. **LOR**: We are planning to partner with NCSSM and LEARN NC for an LOR, until the N.C.RttT effort comes online. **Devices:** The Triangle United Way can deliver extremely low cost laptops. We plan to set min. standards for student device capabilities by July 1 with faculty input to poll our incoming population and determine the number of devices that will need to be supplied - we anticipate at least 40.		Cisco, TWC, Lenovo, NCSSM, LEARN NC
Program Partnerships	Implementing Program Partnerships at opening (*NCTAF, NCSSM)*	1-Jul-2012	Pamela Blizzard
Status:	Attached **NCSSM Letter of Support** and response to section **III.4** details relationship with NCSSM to launch when our Learning Teams begin. We met with NCTAF in Maryland on 4/25/12 for consultation on their Design Studio training & private work with them. Next steps will be to structure RTHS local Learning Teams and pull in NCSSM committed staff.	15-Aug-2012	Eric Grunden, Amanda Marvelle
Curriculum	Expand upon and enhance the required state & national curricula of Common Core (CC) & the *Framework.* Faculty	13-Aug-2012	Eric Grunden, Founding Faculty

	meet over summer in teams to develop unique videos & OERs, and find open source OERs.		
Status:	Faculty is reviewing CC objectives and programming curriculum, considering and selecting assessment model that support CC objectives	Ongoing	Eric Grunden, Founding Faculty
Students	Enrollment & Summer Boot Camp	16-Jul-2012	School Leader, Founding Faculty
Status:	We are designing a two-day camp for orientation, digital media work, labs & activities, and pre-assessments.	16-Jul-2012	Eric Grunden, Amanda Marvelle
Corporate Support	Curriculum partners, IT support, sustainability	Ongoing	Pamela Blizzard
Status:	Past CSC partner Syngenta & prospective new partners NetApp and Eaton are discussing joining Learning Teams. Lenovo, Cisco, IBM & TWC are committing resources for launch.	Ongoing	Pamela Blizzard

RTHS has a sustainable financial model. All plans for our standard operations – the teaching and learning that happens on a daily basis – will be provided by the state and local funds that are received by every N.C. school, as required in our charter proposal. We expect our outreach positions – the partnerships, the digital media development and support, our learning teams and residency management, and our long-term donor development – to be supported by the private dollars we have attracted and plan to grow. We are very sensitive to the need for whatever we do to be completely replicable by other schools, which can be under-resourced; therefore, we are planning for RTHS to be an incubator of tools for use around the state.

8. Existence and quality of a charter or performance contract between the charter school and its authorized public chartering agency

RTHS submitted a Charter application to the State of N.C.'s Office of Charter Schools on November 4, 2011. An independent committee appointed by the N.C. SBE reviewed the application and recommended to the N.C. SBE to pass the RTHS Charter. On March 1, 2012 by unanimous vote, the N.C. SBE approved granting a charter to RTHS. See the attached **NC SBE RTHS Approval Letter** and **Charter Agreement.** The charter agreement will be sent to the N.C. Office of Charter Schools on June 14, 2012 and will be signed by the N.C. SBE during their meeting in June.

The Charter application has extensive discussion of the performance contract measures, which RTHS plans to meet with its student body. RTHS will be accountable for meeting measurable student achievement results (G.S. 115C-239.29A(5)). We will utilize the state adopted performance-based accountability system to ensure at least a year's growth in learning for all students as a minimum standard. It is our intention to increase the percentage of students who meet or exceed the standards in core 9th grade EOC subjects beyond the performance composite of the schools or counties from which they enroll. The ABCs Performance Composite is the percentage of the test scores in the school at or above Achievement Level III (often referred to as "at grade level" or "proficient"). RTHS will continue to monitor the progress of the changing standards of measurement through the N.C. Accountability and Reform Effort (ACRE) in order to administer the smarter, balanced assessments currently being developed to show student mastery of content and growth. RTHS students will take all state and federally mandated tests to allow us to assess student achievement. RTHS will participate in the ABC Accountability model and administer all required N.C. EOC exams, as required by law. RTHS will measure

success as recognition by the State for meeting, and especially exceeding, growth estimates under the current school evaluation regime in N.C. Being named a School of Distinction or School of Excellence would confirm that our methods are successful. N.C. requires the ACT to be administered annually to all juniors and the ACT-PLAN to be administered to all sophomores. We intend to use the extensive analytical reports provided by ACT after each of these events to consider our student body progress relative to the rest of the nation.

9. The degree of flexibility afforded by the SEA to the charter school

RTHS will be a high-quality public charter school that is free from State or local rules that inhibit flexible operation and management of the school per N.C. charter school law (115C-238.29). RTHS will not be required to report to any of the LEAs where our students reside:

1. RTHS shall be accountable to the N.C. SBE for ensuring compliance with applicable laws and the provisions of its charter
2. RTHS shall operate under the written charter signed by the N.C. SBE. RTHS is not required to enter into any other contract. The charter shall incorporate the information provided in the application, as modified during the charter approval process, and any terms and conditions imposed on RTHS by the N.C. SBE. No other terms may be imposed on RTHS as a condition for receipt of local funds.
3. The board of directors of RTHS shall decide matters related to the operation of the school, including budgeting, curriculum, and operating procedures.
4. Except as provided in 115C-238.29E and pursuant to the provisions of its charter, RTHS is exempt from statutes and rules applicable to a local board of education or local school administrative unit. (1995 (Reg. Sess., 1996), c. 731, s. 2; 1997-430, s. 4.)

RTHS will operate in pursuit of a specific set of educational objectives determined by the RTHS Board of Directors and agreed to by the authorized public chartering agency; RTHS is nonsectarian in its programs, admissions policies, employment practices, and all other operations, and is not affiliated with a sectarian school or religious institution; RTHS does not charge tuition; RTHS complies with the Age Discrimination Act of 1975, title VI of the Civil Rights Act of 1964, title IX of the Education Amendments of 1972, section 504 of the Rehabilitation Act of 1973, and part B of the Individuals with Disabilities Education Act; RTHS is a school to which parents choose to send their children, and admits students through a lottery if more students apply for admission than can be accommodated; RTHS agrees to comply with the same Federal and State audit requirements as do other secondary schools in the State, unless such requirements are specifically waived for the purpose of this program; RTHS meets all applicable Federal, State, and local health and safety requirements; RTHS operates in accordance with State law; and RTHS has a written performance contract with the authorized public chartering agency that includes a description of how student performance will be measured in charter schools pursuant to State assessments that are required of other schools and pursuant to any other assessments mutually agreeable to the authorized public chartering agency and RTHS. RTHS is held accountable for enabling students to reach challenging State performance standards, and is open to all students *(42 U.S.C.§2000(c)-(d) (Title IV & Title VI)) and G.S. 115C-238.29F(g)(5).*

RTHS will follow the charter approved by the N.C. SBE on March 1, 2012. The operational model is flexible allowing for complete control over our budget and expenditures. Budget changes will be voted on by RTHS's Board and approved by a majority vote. Any minor changes that need to be made to the Charter will be submitted to the N.C. Office of Charter Schools; substantial changes will need to be approved by the N.C. SBE. RTHS has the autonomy

to plan and execute our school's schedule and operations in accordance to our Charter, and the autonomy to hire and determine our personnel. RTHS will hire personnel with standards from NCLB and will abide by N.C. law 115C-238.29F.e1. RTHS employees are not employees of the local school administrative unit in which RTHS resides. RTHS's Board shall employ and contract with teachers to perform the particular service for which they are employed in the school; at least fifty percent of teachers shall hold teacher certificates and teachers in the core areas of mathematics, science, social studies, and language arts shall be college graduates.

RTHS is a next-generation high-quality charter school that is intended to use the strength of other N.C. charters – autonomy that allows greater flexibility and innovation[10] - and share its experiences with the State's public schools.

[10] *Free to Lead: Autonomy in Highly Successful Charter Schools*, National Alliance for Public Charter Schools, Ableidinger & Hassel, April 2010

Other Attachment File(s)

*** Mandatory Other Attachment Filename:** BlizzardResume.pdf

Add Mandatory Other Attachment | Delete Mandatory Other Attachment | View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment | Delete Optional Other Attachment | View Optional Other Attachment

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Pamela Blizzard [redacted] [redacted]

Functional summary

Experienced non-profit leader and educational visionary with strong organizational growth skills, fundraising, program development and management expertise.

Relevant Experience

Contemporary Science Center — **Research Triangle Park, NC**
Executive Director/Founder — **2002 - Present**

Founder, Research Triangle High School. Envisioned, building and directing the establishment of a new STEM charter high school, which will use the talents of Research Triangle Park to innovate in STEM education and share those innovations with teachers and schools across North Carolina.

Envisioned, built and directed a science education non-profit that immersed NC high school classes in the discoveries of Research Triangle for 8 years, serving almost 4,000 teenagers statewide.

Raleigh Charter High School — **Raleigh, NC**
Chair of Board of Directors/Founder — **1998 - 2001**

Envisioned and established a nationally-ranked college-preparatory school that combines accelerated curriculum with in-depth, immersive experiences.

Forma Design — **Raleigh, NC**
New Business Developer — **1996 - 1997**

Business development for graphic design firm, with extensive cold calling.

AlphaGraphics — **Richmond, VA**
Partner and Chief Operating Officer — **1990 - 1995**

Directed all advertising in print, direct mail and radio, building sales from $0 to $600,000. Responsible for interviewing, hiring & firing of all staff.

Hewlett Packard Company — **Sunnyvale, CA**
International Product Manager, Personal Computer Division — **1982 - 1985**

Led the creation and approval of business plan for start-up of Asian PC operation with partners from five countries.

Coordinated HP's PC internationalization plan, resulting in simultaneous worldwide product introduction in nine languages, seventeen countries, with extensive European travel.

Other Experience

Hewlett Packard Company **Sunnyvale, CA**
Financial Accountant, Instrument & Optoelectronic Divisions **1977 – 1982**

Cost and general accounting, moving through all departments, per HP policy.

Education

Santa Clara University — Santa Clara (Silicon Valley), CA
MBA Marketing & Finance

Brown University — Providence, RI
BA Urban Studies

Service

Board of Trustees, Educational Commission for Foreign Medical Graduates, 4/12 – Present. Nominated by the Federation of State Medical Boards to serve on the $60M national non-profit in Philadelphia, which certifies and advocates for international medical graduates.

Public Member, NC Medical Board, 11/08 – Present. Public representative to the state commission that licenses and regulates physicians statewide.

Member, Institute for Emerging Issues 2006-2007, Innovation, Technology & Entrepreneurship Working Group, North Carolina State University: Transforming Higher Education

Member, State Board of Education's E-Learning Commission, Curriculum & Instruction subcommittee, March 2005 to 2006; charged with opening the NC Virtual School.

International Skills

Graduated Taipei American School, Taipei, Taiwan, studying 4 years of Chinese and 5 of Spanish. Attended middle school in the Republic of the Philippines. Traveled extensively in Europe.

Recognition

Raleigh Charter High School was named the "9th Best High School in America" by Newsweek magazine, May, 2005, and continues to rank in the top 20 nationally each year.

Eric A. Grunden

[redacted]

Education

1994 M.Ed., Secondary Science Education (Proteach Program), University of Florida

1993 B.S., Chemistry, University of Florida

Positions Held

2000-Present	Raleigh Charter High School, Raleigh, NC	Science Department Chair; teaching Chemistry, Advanced Placement Chemistry, Physics, Advanced Placement Physics, Astronomy
2008-2009	Contemporary Science Center, Durham, NC	Education Director (while on sabbatical from Raleigh Charter)
1997-2000	Rockdale County High School, Conyers, GA	Teaching Chemistry, AP Chemistry, Physics, Physical Science
1994-1997	P.K. Yonge Developmental Research School, Gainesville, FL	Teaching Chemistry, Gifted 7th/8th grade science

Leadership

2011-present	National Science Teachers Association Committee on High School Science Teaching
2010-present	Leadership Team, Church of the Resurrection, Fuquay-Varina, NC
2010-2011	Board President, North Carolina Association for Scholastic Activities
2005-present	Science Department Chair, Raleigh Charter High School
2004-2007	Faculty Representative, Raleigh Charter High School Board of Directors
2003-present	Founder and Chief Administrator, North Carolina Academic Team Association (promotes and supports quiz bowl in North Carolina)

Leadership Highlights

- Wrote several portions of and helped create the two most recent versions of the RCHS Technology Plan for DPI, including participating in one Tech Plan audit
- Led a group of teachers who created an interdisciplinary day-long lesson plan based on paradigm shifts in history. The group comprised 7 teachers and took 3 years to develop. Students move through the lesson over four years (one day per year). This has run successfully for 6 years and involves the entire school one day each year. The committee continues to meet, evaluate, and modify the activities several times annually.
- Coordinated hiring of new science teachers (contacting, arranging/conducting complex interview, evaluating candidates) since 2005 (6 positions)
- Coordinated science department planning for RCHS building upfit, including builder specifications and safety requirements
- Responsible for science safety as the board-appointed Chemical Hygiene Officer, including meeting OSHA and EPA requirements for chemical handling and disposal campus-wide

Awards, Fellowships, Grants

2011 Presidential Award for Excellence in Mathematics and Science Teaching, North Carolina finalist

2010 Sigma Xi Outstanding High School Science Teacher

2010 ACS-Hach High School Chemistry Grant, $1100

2006 North Carolina Biotechnology Center Biotechnology Education Minigrant, $5800

2006 Ben Cooper Young Ambassador Award, Partnership for Academic Competition Excellence (award given for my work in promoting quiz bowl in North Carolina)

1998 Georgia Industrial Fellowship for Teachers (GIFT), $5000 research stipend (May-August 1998)

Professional Organizations

American Chemical Society

National Science Teachers Association

North Carolina Science Teachers Association

North Carolina Science Leadership Association

Accreditation

North Carolina Certification in General Science (2010-present)

RTHS Board of Directors Biographies

Pamela Blizzard, MBA
Executive Director, Contemporary Science Center
P.O. Box 13453, Research Triangle Park, 27709

Pamela founded the Contemporary Science Center (CSC) in 2002 and launched its programs in 2004, after two years of research and development. The CSC was founded to 'open the doors' to the resources of Research Triangle Park for teenagers from across the state and has served over 3,500 students since opening. Pamela led the founding team for Raleigh Charter High School, developing and implementing the educational and operational plans for the school, and has consulted with area charter schools since 2001. Raleigh Charter went on to become a nationally ranked college preparatory school, annually ranked in the top 25 schools in the US by US News and World Report. Pamela served on the NC e-Learning Commission from 2005 to 2006, and has served on the North Carolina Medical Board, which licenses and regulates the state's health providers, since 2007. Pamela's prior entrepreneurial ventures include launching and running a family business for five years in Richmond, VA, and creating a small advocacy organization for working mothers in the San Francisco Bay area. She worked for nine years in finance and marketing for Hewlett Packard in California. She received an MBA from the University of Santa Clara, and a BA from Brown University.

Rich Cohn, Ph.D.
Senior Principal and Director, Health Sciences Research, SRA International, Inc.
2605 Meridian Parkway
Durham, NC 27713

Dr. Rich Cohn brings more than 25 years of experience as a statistical consultant to government, industry and academia to his role as Director of Health Sciences Research at SRA International. He oversees a center that includes leading health scientists and statisticians who conduct research and address critical needs in such fields as environmental health, respiratory health, and children's health. Dr. Cohn was also instrumental in establishing the Research Triangle Environmental Health Collaborative, a nonprofit established to leverage the combined capabilities of the region’s government, commercial, and academic environmental health institutions, and to apply that expertise toward high-impact, cross-cutting issues in environmental health. He continues to serve on the Collaborative’s Executive Committee. Prior to joining SRA, Dr. Cohn served a five-year term at the University of North Carolina's Collaborative Studies Coordinating Center within the School of Public Health. Scientifically, Dr. Cohn has been recognized for important statistical and methodological contributions and has published articles on environmental allergen exposures and asthma, air quality modeling methods, and laboratory performance assessment techniques.

He has extensive experience in designing studies, designing and executing specialized data analyses, and disseminating results to the scientific community. Dr. Cohn holds an undergraduate degree in mathematics from the University of Virginia, a master's in statistics from Virginia Polytechnic Institute, and a doctorate in statistics from North Carolina State University.

Eric A. Grunden, M.Ed.
Faculty, Science Department Chair, Raleigh Charter High School
1307 Glenwood Ave, Raleigh, NC

Eric Grunden earned a B.S. in Chemistry and a M.Ed. in Secondary Science Education from the University of Florida, and began teaching at the P.K. Yonge Developmental Research School, the University of Florida's educational laboratory school. He taught chemistry and physics at Rockdale County High School in Conyers, GA before joining the faculty at Raleigh Charter High School in 2000, where he is the science department chair and teaches Chemistry, AP Chemistry, and Astronomy. He has been a board member of the Contemporary Science Center (CSC) since its inception and developed several of the field studies. In 2008 he served as Education Director at the CSC and has continued to consult and teach field study units. He has published several articles in practitioner journals and regularly presents at state and national conferences. In 2010 he was named by the Research Triangle Park chapter of Sigma Xi as Outstanding High School Science Teacher, and in 2011 was named a finalist for the Presidential Award for Excellence in Math and Science Teaching for North Carolina.

Mike McBrierty, M.P.P.
Manager, Public Affairs, Biogen Idec
5000 Davis Drive
Research Triangle Park, NC 27709-4627

Mike McBrierty is Senior Manager, Public Affairs for Biogen Idec, a global biotechnology leader in the discovery and development of innovative therapies addressing multiple sclerosis (MS) and other neurodegenerative diseases. Mike is responsible for a range of public affairs activities for the company's Research Triangle Park (RTP) operations, including state and local government relations, community engagement, media relations and employee communications. As head of RTP public affairs, he also is a member of the local senior management team charged with ensuring strategic alignment of Biogen Idec's 900-employee RTP site.

Mike is known for facilitating partnerships between Biogen Idec and local stakeholder groups to foster an educational system aligned with biotechnology industry needs and a business climate that encourages innovation-based

businesses to thrive. In 2009, Governor Perdue appointed him to the NC Board of Science and Technology. He serves on the steering committee of the Bioprocess Development Forum, the North Carolina Business Committee for Education (NCBCE), the Board of the Contemporary Science Center, Futures for Kids Business Advisory Council and the Durham Public Schools Superintendent's Business Advisory Committee, among others. Prior to joining Biogen Idec in 2007, Mike was Manager, Global Government Affairs for SAS Institute, the world's largest privately-held software corporation. He represented the company on a variety of legislative and policy initiatives with domestic and international issue portfolios. Mike also managed the company's relationship with government relations firms in multiple states and represented the company in trade organizations and coalitions. He began his career at the U.S. Chamber of Commerce as Program Coordinator for the Brazil-U.S. Business Council where he ran member services and programs. Mike earned a Master of Public Policy (MPP) from Duke University's Terry Sanford School of Public Policy and a B.A. *magna cum laude* in Latin American Studies and Political Science with honors from Texas A&M University. While at Duke, he was awarded a Foreign Language/Area Studies (FLAS) Fellowship.

Gerald R. (Jerry) McCrain, Ph.D.
VP, District Director, PBS&J
1616 E. Millbrook Rd, Suite 310
Raleigh, NC 27609

Dr. McCrain serves as Vice President and senior project director for Atkins' mid-Atlantic region. He has a background in wetland ecology, permitting, mitigation banking, environmental policy development, and watershed planning and management. He has 36 years of experience in the environmental field, including 21 years of progressive consulting experience. His current responsibilities also include assisting with policy development for the company as well as for state/institutional programs such as the North Carolina Ecosystem Enhancement Program (NCEEP), the NC Turnpike Authority, and NC Global TransPark; large-scale complex project management; business development; and public outreach/stakeholder involvement. In addition, he is responsible for providing direction and support to Atkins' nationwide mitigation banking program.

Jerry served as the principal of his own firm, EcoScience Corporation, for 10 years prior to merging with Atkins (formerly PBS&J). From 1990 – 1998 he was regional Vice President for Environmental Services, Inc., a Jacksonville, Florida-based environmental firm with responsibilities for building and developing a North Carolina office to provide ecological and natural resource consulting services. He was on the staff of NCDOT for six years (1983 - 1989) where he was responsible for environmental permitting (Section 404, 401 Water Quality Certification, Section 10, CAMA, US Coast Guard) and wetlands mitigation. He

is a Certified Environmental Professional (CEP) through the Academy of Board Certified Environmental Professionals and a Professional Wetland Scientist. Dr. McCrain is currently Chairman of the Board for the Contemporary Science Center. He has the following degrees from North Carolina State University, a Ph.D. in Resource Management (Minor: Public Policy), a M.S. in Botany (Minor: Ecology) and a B.S., Botany

Karen Ondrick
Program Director, Community Relations, Lenovo USA
1009 Think Place
Bldg One / 4G12
Morrisville, NC 27560

Karen Ondrick is Program Director for Community Relations at Lenovo's executive headquarters in Morrisville, North Carolina. Her responsibilities include acting as Lenovo's single point of contact for North Carolina and coordinating community outreach through various Lenovo employee volunteer initiatives, including the management of the annual Lenovo Employees Care charitable contribution campaign. Karen joined IBM in 1981 in Connecticut and spent 12 years in management positions in Northeastern U.S. branch, region, and headquarters sites. After relocating to North Carolina in 1993 as IBM Sales & Distribution Operations Manager for the Southeast U.S. Customer Support Organization in Raleigh, Karen transferred to IBM's Personal Computing Division in 1996. Karen held various management and staff positions in the Americas PC Division and assumed her current role in Community Relations for Lenovo in 2006, after Lenovo's acquisition of IBM's global Personal Computing Division.

Craig A. Nygard, B.S.
Senior Technical Staff Member, IBM Academy of Technology
B001 / F114
3039 Cornwallis Road
RTP, NC 27709

Craig A. Nygard focuses on the innovative uses of technology for IBM's strategic outsourcing clients. He works with client teams to discover innovative value propositions for their clients. In that role, he works with the IBM-wide themes, such as Smarter Planet and Cloud Computing, to provide the client-focused thought leadership on the uses of technology to improve business performance. He presents frequently to internal and external audiences on these topics. Craig recently finished two four year terms leading the NC affiliate of the IBM Academy of Technology. Three workstreams resulted from that work in support of the NC Virtual Public School. Volunteer teams, under Craig's guidance, are presently developing a deeper approach to analytics and designing a more modern portal for NC Virtual Public School.

Craig joined IBM in 1978 with five years experience in two progressive corporations. Since then, Craig has held technical and management leadership positions in operating systems support, Technical Strategy, Business Strategy, Client Relations and the Strategic Outsourcing Executive Briefing Center as Manager and subject matter expert for managed operations and web facing systems. He was named as a Senior Technical Staff Member in May, 2000 and appointed to the IBM Academy of Technology in 2009. Craig has a B.S. degree from Drexel University in the Humanities and Social Sciences.

Darrell Allison, J.D.
President, Parents for Educational Freedom in North Carolina
4900 Falls of Neuse Rd. Suite 155
Raleigh, NC 27609

Darrell Allison is the President of Parents for Educational Freedom in North Carolina (PEFNC). PEFNC began in 2005, within a few short years, the organization's constituent base grew by 525 percent, with supporters numbering near 60,000 statewide. As the voice for parental school choice in North Carolina, Darrell Allison has played the crucial role of representing the interests of parents seeking more educational options for their children before legislators and other decision makers.

Within the past few years, PEFNC has made expanded school choice known to hundreds of thousands across North Carolina through multiple town hall forums, legislative charter school visits where state lawmakers toured charter schools in their districts, and recently, statewide screenings of *Waiting for 'Superman'* where more than 3,000 people viewed and discussed the groundbreaking documentary. PEFNC's efforts have led to legislative leaders like Sen. Malcolm Graham (D), who represents North Carolina's most populous county, publically attributing their shift to supporting parental school choice to Darrell and his organization. They have also lead to the elimination of North Carolina's public charter school cap thanks to overwhelming legislative support and Gov. Beverly Perdue's signature.

Cultivating support was nothing new for Darrell. As a national coalition co-director key government liaison for White House officials and congressional leaders on Capitol Hill, Darrell led a successful grassroots lobbying effort in the House of Representatives that resulted in the passage of HB 7 Community Solutions Act. His public policy experiences also include working as a legal specialist for the U.S. Department of Justice, Civil Rights Division. Under Darrell's leadership, PEFNC has become a 'do-tank.' In 2010, the non-profit was the first to announce that North Carolina did not make the cut in the first round of federal Race to the Top funding. PEFNC has remained newsworthy thanks to its community and legislative endeavors regarding a number of parental school choice measures,

including efforts to remove the state's charter school cap, which has led to over 260 media mentions within the last two years. A Tar Heel native, Darrell is a former White House intern who graduated magna cum laude from North Carolina Central University and received his juris doctor from the University of North Carolina at Chapel Hill School of Law.

Martinette Horner, MSA
P-12 Distinguished Educator in the School of Education, UNC-Chapel Hill
219A Peabody Hall, CB 3500
Chapel Hill, NC 27599

Martinette Horner began her career as a regular classroom teacher in 1996 after graduating from the University of North Carolina at Chapel Hill as a NC Teaching Fellow with a bachelor's degree in elementary education. During her time in the classroom, Horner also achieved the distinction of National Board Certified Teacher as a Middle Childhood Generalist. Horner taught third and fourth grades for eight years before returning to the University of North Carolina at Greensboro as a NC Principal Fellow, earning a Master of School Administration degree. During this time she also served as a district mentor for beginning teachers and supported students in a Title I school as a literacy tutor. After four years as a school administrator, Horner returned to the University of North Carolina at Chapel Hill as the first P-12 Distinguished Educator in the School of Education. In this capacity, Horner coordinates the Elementary Education program and directs the school's outreach initiative, Research Triangle Schools Partnership.

John Kerr, B.S.
President, York Commercial
801 Oberlin Road, Raleigh, NC 27605

John is a veteran Triangle commercial real estate broker who has been affiliated with York Properties since 1988. He graduated from the University of North Carolina at Chapel Hill in 1984 with a degree in Political Science. Licensed since 1985, John was an early member of the York team, which began with the addition of a third party brokerage company in 1983. After over 20 years in the business, John is proud of his accomplishments representing both buyers and sellers, landlords and tenants, while being on the front line of the Triangle region's transition from a third tier to a second tier commercial real estate market, and one of the fastest growing regions in the country.

Recently, John has begun to become more involved in management and strategic planning at York Properties and in 2011 was named President of the Commercial Division of York Properties. He will, however, continue be an active broker in terms of his primary responsibilities and daily activities.

Community involvement is a hallmark of being an employee of York Properties, and John has stayed active in a variety of community activities. He is currently on the Board of Advisors for The Central YMCA, the Board of Directors for The Contemporary Science Center and the Board of Directors for the Council for Entrepreneurial Development (CED). He is also involved with fundraising for The Boys and Girls Club of Wake County.

RTHS Community Meetings

The following meetings were held to talk about the RTHS proposal with members of the public to ascertain the level of public interest in the proposed charter school. All gave many helpful, insightful suggestions and shared their interest in the furthering of the idea of a STEM school joining the Research Triangle Park community.

January - March 2011
Bob Winston, RTF Board, President, Winston Hospitality
Ginny Bowman, RTF Board
Bill McDiarmid, Dean, UNC CH School of Education
Todd Roberts, Rick Stone, Chancellor & BOD Chair, NCSSM
JOBS Commission, presentations
Kelly Leovic, EPA
Erika Reid, NIEHS
Bill Shore, GSK
Brent Ward, RTI
Don Holzworth
Steven Goldsmith, Syngenta
Adam Monroe, Novozymes, CEO
Ed White, Field2Base, CEO
Annette Lucas & Elizabeth Altman, moms
Jill Ullman & Tracy Gilbert, Citizen Schools
Steve Pearson, IBM
Karl Rectanus, NC STEM
Ted Deutch, Sandoz
Millie Chalk, Duke Energy
Tom Carroll, NCTAF

April – June 2011
Thomas Vaidhyan, Aten
Missy Sherborne, DonorsChoose
Governor Hunt, Womble Carlyle
Dan Gerlach, Golden Leaf
Millie Tan, Quintiles
North Carolina School of Science and Math staff
Monica Griesdorn, Michele Terrell & Gail Worthington, moms of middle schoolers
Carolina Biological Online Division
Walter Dalton, Lt. Governor
Mike McLauglin, Lt. Governor staff
Kimberly Reynolds, Lt. Governor staff
Dick Daugherty, RTF Board
Liz Rooks, RTF CEO
Barnett Berry, Center for Teaching Quality
Daniel Riley, Teach for America, Asst ED
Bill Greenlee, The Hamner Institute, CEO
Abhi Muthiyan, TiE

Judith Cone, Chancellor's Office, UNC CH
Tricia Willoughby, NCBCE/SBE
Tom Bradshaw
Research Triangle Foundation Board of Directors
Biogen Idec Foundation Board of Directors

RTHS Faculty Development Advisors Biographies

RTHS's educational plan was crafted by a team of influential community education advisors - master teachers in the region with whom we have worked for many years successfully implementing innovative curricula bringing the full weight of a strong community to assist the birth of RTHS. In August 2011 the team began to brainstorm, define and outline RTHS's design and charter proposal. These teachers brought their broad backgrounds from RCHS, Enloe and East Chapel Hill high schools, 3 of the highest performing schools in the state and from KIPP, Teach for America and YE Smith school in Durham, having served in some of the lowest performing schools in the state and UNC-CH School of Ed.

RTHS's educational plan was crafted by a team of influential community education advisors - master teachers in the region with whom we have worked for many years successfully implementing innovative curricula bringing the full weight of a strong community to assist the birth of RTHS. In August 2011 the team began to brainstorm, define and outline RTHS's design and charter proposal. These teachers brought their broad backgrounds from RCHS, Enloe and East Chapel Hill high schools, 3 of the highest performing schools in the state and from KIPP, Teach for America and YE Smith school in Durham, having served in some of the lowest performing schools in the state.

Kenny Felder
Kenny Felder has been a teacher at Raleigh Charter High School for thirteen years. He has taught Pre-Algebra, Advanced Algebra II, AP Calculus AB, AP Calculus BC, Calculus III, AP Computer Science, and AP Physics "C". He graduated in 1988 from the University of North Carolina at Chapel Hill with degrees in Physics ("With Highest Honors") and English. He is currently co-authoring a college-level text on Math Methods for Engineering and Physics. He lives in Chapel Hill with his wife and four children.

Judy Jones
Judy Jones has been teaching Biology, Human Biology, and occasionally Chemistry for over 30 years. She currently teaches at East Chapel Hill High School. She has also been an AVID teacher. She has been a Science Club adviser and Science Olympiad coach for many years. She has a B.A. in Biological Sciences and an M.A.T. from Stanford University. She is a nationally board certified teacher (AYA Science) and has done extensive work at the state level writing the goals, objectives, and support documents for the state biology curriculum. She is also a certified mentor teacher. Recent honors include the Presidential Award for Excellence in Science Teaching and the Southeastern Biologists Teaching Award. More importantly, she loves teaching and gets much satisfaction from the pleasure and achievement of her students in science.

Amanda Marvelle
Dr. Marvelle is the Education Director for the Contemporary Science Center (CSC). She teaches both day-long inquiry-based field studies and coordinates and manages the daily operations of the CSC. Dr. Marvelle has an extensive background in science education; most notably, she was an integral part of establishing North Carolina DNA Day and has

taught students from elementary to adult in a variety of science topics. In 2010, Dr. Marvelle received her Ph.D. in Genetics and Molecular Biology from the University of North Carolina at Chapel Hill under Dr. Karen Mohlke. Her research focused on the Genetics of Obesity-related Traits and Lipoproteins in Filipino Women. Dr. Marvelle has ten published peer-reviewed articles (née Nave) and was awarded the University of North Carolina Integrative Vascular Biology Pre-doctoral Fellowship and the Sarah Graham Kenan and Hobgood Edwards Dissertation Fellowship. Prior to her graduate studies, Dr. Marvelle researched the genetics of pheochromocytoma at the National Institute of Child and Human Development, National Institutes of Health in Bethesda, MD as a Post-baccalaureate Intramural Research Training Award Fellow. She earned her Bachelors of Science in Biology with an emphasis in Computational Science from Wofford College in Spartanburg, SC.

Barbara Soloman

Barbara Soloman holds the BS in Mathematics (cum laude, Phi Beta Kappa) from the City College of New York, the BS in Mathematics Education (summa cum laude) from the North Carolina State University, and the MS in Mathematics Education from NCSU. She teaches Geometry and Calculus and Advanced Systems Theory (a course in critical thinking- not a math course) at Raleigh Charter High School. Previously, Mrs. Soloman was the associate director of the First-Year College at NCSU, where she also held other teaching and administrative posts and published papers on teaching and advising. She wrote the Soloman Learning Style Inventory (copyright 1992), which is used extensively by schools and businesses all over the country. She won the Outstanding Adviser Award from the National Academic Advising Association in 1994. She was the first recipient of the annual Outstanding Adviser award at NCSU, which is named after her.

David West

David West is passionate about strengthening his community through education and has dedicated his professional life to that passion. He teaches Spanish at Enloe High School in Wake County, NC. Mr. West joined Enloe's faculty as a Spanish teacher after 3 years at Raleigh Charter High School and 5 years as an instructor in English as a Second Language at Wake Technical Community College. Mr. West began his teaching career in Morelos, Mexico, where he taught ESL from 1995 to 1998 including two years at La Universidad Autonoma del Estado de Morelos (Morelos State University). Mr. West has also worked outside of the classroom as the Policy Analyst to Minority Affairs in the NC Office of the Governor, an interpreter/translator for various governmental and non-governmental public agencies in the USA and Mexico, and the State Project Director for the Leadership Conference Education Fund. Mr. West is originally from Raleigh, where he attended Stough elementary, Martin Middle, and Enloe High. He has a Masters in Public Policy Analysis from Duke University and he earned his BA in Spanish Literature at Earlham College.

Cynthia Clark Brown

Cynthia Clark Brown, DMA currently serves as Chair of Fine Arts, Director of Choral and Band Activities at Raleigh Charter High School. Dr. Brown received her BA from Campbell University and her Masters and Doctorate of Music from Southern Seminary in

Louisville, Kentucky. As a founding faculty member of Raleigh Charter High School, Dr. Brown has witnessed the many stages of growth in a charter school and in the charter school movement in North Carolina. Under her direction, the Raleigh Charter High School choral ensembles and Concert Band have consistently received Excellent and Superior ratings. She resides in Raleigh with her husband, Samuel and their Bedlington terrier, Kirin. Her passions outside of music education include cooking and her support of the Seagrove potters.

Janice Smith
Janice Smith is the Professional Development Coordinator at Maureen Joy Charter School in Durham, NC. She works with K-8 teachers on individual and team professional development, and coordinates school PLCs. Janice spent three years working at KIPP: Gaston College Preparatory, two of which were as an Eastern North Carolina Teach For America Corps Member. She taught 7th & 8th grade technology, and 11th grade US & AP US History. She has Bachelor's degrees from American University in Washington, DC in Public Policy and Women & Gender Studies. She received her Masters Degree from NC State in Curriculum Development & Instructional Supervision and has spent two summers as a Mentor Teacher with Student U, a Durham non-profit working with local middle school students. Additionally, she has spent several years with Relay College, helping to build their database of instructional videos highlighting teacher best practices at some of NYC's highest achieving schools.

Asha Watkins
Asha Watkins is a language arts and *PRIDE* remediation teacher at East Wake Middle School. She co-advises the National Junior Honor Society, serves on the parent involvement committee and co-teaches with a special education teacher following the inclusion model and assessing data. For six years, she served as assistant principal at Y.E. Smith Elementary Museum School where she coordinated and managed the school's museum program.
Asha has also served as a tutor for The Mekye Center where she instructed learning differenced students in reading comprehension and basic math. At The Mekye Center, Asha collaborated with staff and parents to implement the Orton-Gillingham method of instruction. She was an English and language arts teacher at the Durham School of the Arts for five years. Her responsibilities included designing and implementing curriculum, daily lesson plans for upper classmen, supervising the junior class council, and acting as preceptor to a novice teacher. Asha also worked as a curriculum designer for Durham Public Schools, co-designing and teaching curriculum for the novel *The Year of Impossible Goodbyes* to middle school teachers across the district. In this capacity, she also co-created, implemented, and supervised high school remedial English curriculum. Asha received a B.A. with honors in English from Spelman College, an Ed.M. in Teaching and Curriculum from Harvard's Graduate School of Education, and a MSA from North Carolina State University.

Eric Grunden and **Martinette Horner** are faculty development advisors and also serve on the Board of Directors. Their resumes can be found under Board of Directors resumes.

PUBLIC SCHOOLS OF NORTH CAROLINA

STATE BOARD OF EDUCATION William C. Harrison, Ed.D., *Chairman*
DEPARTMENT OF PUBLIC INSTRUCTION June St. Clair Atkinson, Ed.D., *State Superintendent*
WWW.NCPUBLICSCHOOLS.ORG

March 1, 2012

Ms. Pamela Blizzard, Executive Director
Research Triangle High School
PO Box 13453
RTP, NC 27709

Dear Ms. Blizzard:

The Office of Charter Schools is pleased to inform you that, on March 1, 2012, the State Board of Education (SBE) voted to grant fast track approval to Research Triangle High School.

Please note that the SBE approved for Research Triangle High School to open in August 2012. Should you believe that your charter school cannot open by August 15, 2012, you can submit a new charter application prior to the April 13, 2012 twelve noon deadline. If you do not and circumstances arise preventing Research Triangle High School from opening by August 15, 2012, this SBE approval is null and void meaning that you must resubmit in a future application period.

The State Board of Education may grant the initial charter for a period not to exceed 10 years and may renew the charter upon the request of the chartering entity for subsequent periods not to exceed 10 years each. The charter for Research Triangle High School is granted for ten years, becoming effective July 1, 2012 and will expire June 30, 2022. The Research Triangle High School will undergo a five year review process in 2017.

Be advised that Senate Bill 8, which lifted the charter school cap, also revised other parts of the statute and outlined minimum criteria for academic performance. G.S. 115C-238.29G gives the SBE authority to terminate or not renew the charter if a charter school "demonstrates no growth in student performance and has annual performance composites below sixty percent (60%) in any two years in a three-year period." The law further stipulates that if a charter school is within its first five years of operation, then the charter school shall develop a strategic plan that will be reviewed and approved by the SBE. If the charter school fails to demonstrate improvement under this strategic plan, the SBE is authorized to terminate or not renew that charter.

The Office of Charter Schools will be providing four all-day professional development sessions that will be vital for the successful opening of this fast track charter school in August 2012. Professional development days will begin at 8:30 am, and end no later than 4:30 pm. As a fast track applicant, your time for planning is at a premium and these four days are designed to provide you up-to-date information and technical assistance as you prepare to open your charter school. Attached are a tentative agenda (that lists the session topics for each day) and a registration form. Please return the registration form no later than March 16, 2012.

It is critical that most of the founding board members and any identified or hired school leaders attend each session. Your charter school will be responsible for preparing and providing

progress reports to the Office of Charter Schools at each of the four meetings. We specifically need information on the following categories: facility, marketing/enrollment, hiring of staff, and update on the timeline contained in your application. Please have a written update at the March 23 meeting to address the above-mentioned areas.

Participants are responsible for their own travel and meals. Paid parking is available at the corner of Wilmington and Polk Streets. Each day will begin in the following meeting room at the Department of Public Instruction, 301 N. Wilmington Street, Raleigh, NC.

March 23	**April 12**	**May 2**	**June 14**
Room 504	**Room 150 S**	**Room 504**	**Room 150 S**

In addition, Research Triangle High School may now begin the student enrollment process. An additional memorandum, which was sent to all charter schools on February 17, 2012, is attached to provide guidance in regards to NC public charter school student eligibility. This memorandum provides answers to many of the unique admission situations that have arisen in the past two years.

The Office of Charter looks forward to working with Research Triangle High School. If you have any questions please contact Dr. Tom Miller, Office of Charter Schools consultant working with new applicants and new charter schools, at 919-807-3492 or Thomas.miller@dpi.nc.gov.

Sincerely,

Joel E. Medley, Director
Office of Charter Schools

JEM/pg

Attachments

c: William C. Harrison, Chairman, State Board of Education
Philip Price, Chief Financial Officer, NC Department of Public Instruction
John Betterton, Chair, NC Public Charter School Advisory Council

OFFICE OF CHARTER SCHOOLS
Joel E. Medley, *Director* | joel.medley@dpi.nc.gov
6303 Mail Service Center, Raleigh, North Carolina 27699-6303 | (919) 807-3491 | Fax (919) 807-3496
AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

Fast Track Training Sessions

Day 1 MARCH 23 (Room 504 & 564)

Time	Session Focus	Purpose	Presenter
8:30 Room S04	Introduction/Agenda	Provide an overview of day 1 along with future training days	OCS/Miller
8:45- 11:00 Room 504	NC Law & Charter Schools	General Statutes, State regulations and related policy in: - Lottery Process - Enrollment/Admissions - Marketing - Finger prints ALL Participants	Laura Crumpler/ Katie Cornetto
11:00 – 12:00 Room 504	State Health Plan and Retirement	Overview of the State Plan's for Health and Retirement ALL Participants	Diane Whaley
	Lunch		
1:00 – 3:15 Room 564	Exceptional Children	"The Exceptional Children Federal Grant Process - An Online Application" Specific Board Members and Founders/Administration	Valencia Davis
1:00 – 3:15 Room 504	Possible Break out Work sessions	TBD Specific Board Members	OCS
3:15 – 3:45 Room 504	Discussion	Prepare for next session - Best Practices - EC Handbooks - Interest Survey	OCS

Day 2 APRIL 12 (Room 564 & 150 South)

Time	Session Focus	Purpose	Presenter
8:30	Intro and Agenda	Provide Goals	OCS/Miller
9:00 – 11:00	School Finance	- Law, Policy and reporting requirement	Alexis Schauss
11:00	Status Report	Testing and Accountability - Compliance - Testing guide overview	Curtis Sonneman
11:30	Lunch		
12:45	Charter School Boards	- Leadership - Best Practices in CS Board Governance	Medley/Miller
2:30	* Transportation	Transportation	Derek Graham
3:15	*Insurance and Liability		Eileen Townsend

*Possibly could start both sessions at 2:45 to 3:00 – and split the group

Day 3 MAY 2 (Room 504 & 224)

Time	Session Focus	Purpose	Presenter
8:30	Status Report	Ensure Charter Board is operating and on schedule	Miller
9:00 – 10:30	Student Accountability	EVASS, Progress Monitoring Systems,	Dottie Heath
10:45	NC Wise	Training and Reporting Requirements	Rosalyn Galloway
11:30	Lunch		
12:45	Teacher Licensure	Policy; Plans; and Procedures	Nadine Ejire Portia Reese
2:30	Exceptional Children	IDEA Snapshot/Overview	EC Staff
4:30	Survey	Feedback	Miller

Day 4 JUNE 14 (Room 564 & 150 South)

Time	Session Focus	Purpose	Presenter
8:30	Intro and Agenda	Provide Goals	OCS/Miller
9:00 – 11:00	Health and Safety	- Laws, Policies and Procedures - Monitoring &Compliance	
11:00	Status Report		
11:30	Lunch		
12:45	Work session	- Student handbooks	
3:00	Work Session	- Budgets	

<u>Possible Additions:</u>

- Unemployment
- Best Practices Research
- New trainings based on Participant Feedback

Fast Track Training Session
Workshop
March 23, 2012

Charter School: _____ **Phone Number:** _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Name: _____ Position: _____

Email: _____

Submit completed registration form via email to Pat Gillott, patricia.gillott@dpi.nc.gov no later than March 16, 2012

PUBLIC SCHOOLS OF NORTH CAROLINA

STATE BOARD OF EDUCATION William C. Harrison, Ed.D., *Chairman*
DEPARTMENT OF PUBLIC INSTRUCTION June St. Clair Atkinson, Ed.D., *State Superintendent*
WWW.NCPUBLICSCHOOLS.ORG

DATE: February 17, 2012

TO: Charter School Administrators

FROM: Joel E. Medley, Director
Office of Charter Schools

RE: *Enrollment and Lottery Guidance*

Every year, about this time, the Office of Charter Schools receives multiple phone calls regarding enrollment or lottery decisions. Our intent is to provide answers to many of the typical questions that arise so that you can proactively address them in the weeks to come. The paragraphs below will be divided among topics and will cover the most common questions that we have received.

1. **Applications:**
   Any student eligible to attend a public school in North Carolina is eligible to attend a charter school in North Carolina. The charter school, as part of its flexibility, can craft its own student enrollment application. The application must be simplistic in what information is requested prior to the school's lottery and cannot establish barriers to enrollment (i.e. demanding interviews in order to receive applications or prior to inclusion the lottery).

   For instance, a charter school does not need to know the race of children or whether they currently have an individualized education plan (IEP). That information should only be requested after the lottery. Parents have called the Office of Charter Schools and inquired what type of planning is being referenced when schools ask about IEPs, GPA, religion, or race. It is their perception that the school is planning to select certain types of students. Planning purposes for the school begin after student enrollment has been determined; therefore, it is in the school's best interest to remove the above-mentioned types of questions from student applications.

   Some schools utilize a generic student enrollment application and call it an "initial application." Once a child has accepted admission to the school, as determined by the school's lottery, additional information is sought as the charter school transitions this student into its enrollment. That procedure is permissible because enrollment has already been determined, and the school then begins its process of collecting student records.

2. **Lottery**
   Each charter school performs a lottery in different fashions – some draw names or numbers from a hat while others use a computerized randomization process. The law does not prescribe a specific process; however, bear in mind that these lotteries must be noticed to the public and open for anyone to attend for purposes of observation.

OFFICE OF CHARTER SCHOOLS

Joel E. Medley, *Director* | joel.medley@dpi.nc.gov
6303 Mail Service Center, Raleigh, North Carolina 27699-6303 | (919) 807-3491 | Fax (919) 807-3496

AN EQUAL OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER

3. **Enrollment Preference:**
The 3 categories of preference in charter school lotteries are – (1) to siblings "of currently enrolled students who were admitted to the charter school in a previous year," (2) to "children of the school's principal, teachers, and teacher assistants," and (3) to "children of the initial members of the charter school's board of directors." The legislation further clarifies that third point by restricting initial board member preference with the following conditions: available only for the first year of operation, limited to no more than 10% of the school's total enrollment or 20 students (whichever is less), and the charter school is not a former public or private school.

Should a private school convert into a charter school, any students previously enrolled at the private school cannot receive enrollment preference. Those students must go through the lottery process just like all other applicants. Further, 115C-238.29F(g)(5) explicitly states that former public or private schools cannot offer enrollment priority to children of the initial members of the charter school's board of directors.

What happens if a teacher lives in another state but has children that want to attend the charter school? Can the school provide preference to that teacher? Simply put, no. While the law permits certain preference, it must be balanced with other parts of the statute. For instance, G.S. 115C-238.29F(g)(1) says "any child who is qualified under the laws of this State for admission to a public school is qualified for admission to a charter school." Students that are not domiciled in North Carolina cannot attend a public charter school.

Some charter schools have private pre-school programs that are completely separate from their SBE approved charter. While this format is allowable, a charter school cannot grant any sort of preference for students enrolled in those separate pre-schools. Parents that choose to enroll in the preschool must be informed from the beginning of the separation between these entities. Their children will go through the same enrollment and lottery process as any other student.

4. **Siblings:**
Foster children are not considered siblings for the purposes of enrollment preference. To qualify for preference, there must be a legal relationship with the sibling (i.e. adoption). With blended families, the same question of sibling status arises, and the determination is a bit more difficult. Marriage and/or adoption would clearly grant sibling status; however, the school must also consider biological ties through step or half siblings. Conversely, if an individual with children has a live-in partner with children from another relationship, those would not count as siblings because they do not share a biological parent.

5. **Multiple Birth Siblings:**
G.S. 115C-238.29F(g)(5) provides some guidance regarding multiple birth siblings. If multiple birth siblings are applying to the charter school, the charter school enters one surname into the lottery to represent all of the multiple birth siblings. If that surname is drawn, then all multiple birth siblings shall be admitted.

In some instances, multiple birth siblings are not in the same grade, and charter schools are faced with a tough decision. To promote openness, the charter school should ask the parent to pick the grade level to enter the surname, thereby, leaving the decision entirely to the parent. That shift removes the school from any culpability because the parents made the decision.

A further issue has arisen when multiple birth siblings are in different grades or only one slot remains for a grade level but the surname is drawn. What happens at that point? The charter school statute states that if one surname is pulled in the lottery, then "*all* of the multiple birth siblings *shall* be admitted." That language is pretty clear that a spot must be created.
If a surname is drawn for purposes of the waiting list, which of the multiple birth siblings goes on the waiting list first? The law does not provide a clear answer or guidance for those situations. As much as possible, the school should create a policy to address this issue by possibly allowing the parent to make that designation. If a parent chooses, his or her decision removes the school as decision maker.

6. **Domiciled Student:**
Both parents and school administrators have inquired about allowing students from other states to apply for attendance to one of North Carolina's charter schools. We frequently hear that schools vary in their interpretation of whether or not they may accept applications from out of state students if the parents or legal guardian "plan on moving" to the state prior to the beginning of the next school year.

A student must be domiciled in NC to attend public schools, including charter schools, and a student under the age of 18 has the domicile of his or her parent. Therefore, students who are eligible to attend a traditional LEA would be accepted into a charter school subject to spatial constraints. Further, the student is considered eligible to attend NC schools if the parents are domiciled with a permanent home in a NC school district.

Legal guardianship is not the same as legal custody. In fact, guardianship papers are insufficient to establish a legal relationship for the purposes of establishing a domicile. For an adult to claim the child is domiciled, that adult must have legal custody of the child. In the event of parents that are divorced, the child is entitled to claim the domicile of either parent.

Therefore, it is required that all applications for student enrollment accepted by NC charter schools be from parents who are legal residents of NC and not intending to move here at some point in the future. The domiciliary must be in place at the time of the student application in order for that particular application to gain consideration in the charter school lottery.

Just as traditional schools require proof of permanent residency, charter schools should do likewise. Some documentation that can be examined to determine domiciliary are listed below, and this list is by no means exhaustive:

- Copy of deed or record of most recent mortgage payment;
- Copy of lease agreement;
- A utility bill dated within the past 30 days, including: gas, water, electric, landline phone, cable, or satellite;
- A valid NC driver's license or NC photo identification card;
- A vehicle or property tax bill (dated within the past year); and
- A bank or credit card statement with a NC address (dated within the past 60 days)

Children with parents in the United States Armed Forces often encounter special circumstances where their parent(s) are transferred to a specific base to begin deployment. A student who is not a domiciliary of an LEA may attend a charter school, without payment of tuition, if the parent or legal guardian is on active military duty and is deployed out of the LEA in which the student resides. Evidence of the deployment must be provided prior to enrollment at the charter school. Active Duty Training for less than 30 days is excluded.

Foreign exchange students are allowed in North Carolina charter schools as long as they do not take the seat of a properly domiciled NC student. Therefore, foreign exchange students should not be placed into the lottery or enrolled through "sibling preference." If the charter school has a waiting list, that foreign exchange student cannot vault over domiciled North Carolina students. Finally, should a school be able to enroll a foreign exchange student, ADM funds cannot be collected for that student.

7. **Acceptance of Enrollment Offer:**
Charter schools need to provide parents a reasonable time to accept enrollment at the charter school; however, the charter school will need a specific policy to guide that timeframe. Further, parents must be made aware of that timeframe from the beginning of the open enrollment period. Mandating a response within 24 hours is not reasonable.

Often, as the academic year begins, charter schools have students that accepted enrollment but did not attend school on the first few days. The charter cannot just withdraw that student because, once the child is enrolled, the student becomes your responsibility. The charter school must make every effort to contact that parent to see if they have possibly changed their mind. We know of schools that have done their due diligence through documented phone calls and home visits to receive an answer about enrollment.

8. **Foster Parents:**
Unfortunately, foster relationships do not qualify a child as domiciled where the foster parent lives. A child has the domicile of his or her parent. The foster parent is not the legal parent so the foster child does not receive the domicile of that foster parent.

In some instances, foster parents may be in process of legally adopting a child in their care. Even though the adoption process is under way, that foster parent is not yet the legal parent, so the child still does not receive the domicile of the foster parent. Once legal custody has been granted and the legal adoption has been fully approved, that child would then gain the benefit of their new parent's domiciliary.

9. **Student Placement:**
Sometimes charter schools discover that an application for enrollment has been completed; however, the student may be retained and thus not promoted to the next grade level. That student cannot be placed in the lottery for both potential grade levels because that provides him or her unfair advantage in the lottery process. The student should be placed into the most appropriate grade level based on school/parent/administrator information. Should the student be admitted and the end of year results prove the wrong grade level was chosen, the student's slot is still guaranteed; and the school must appropriately place the student.

If a homeless student wishes to enroll in a charter school after the lottery has already been held, the charter school is not required to create a spot for that student and vault them over the determined waiting list. According to the Elementary and Secondary Education Act (ESEA), that requirement is applied to LEAs. Since charter schools in North Carolina are considered LEAs for special education purposes only, the stipulation does not bind charter schools.

A charter school must, however, accept any homeless student who submits a timely application and enters through the lottery or wait list, provided the student is of the appropriate age and grade for the charter school.

RTHS Faculty Resumes

Presented in the order listed below:
Deborah Brown – English
Ian Finley Two sections English, three sections Drama
Dr. Lara Pacifici - Biology
Dr. Amanda Marvelle two sections biology and 21st Century Media Specialist
Melissa Young - Math
Alex Drake - History
Richard Jowers - Physical Education & Health

Deborah M. Brown

Highlights

- 24 years of teaching experience
- National Board Certified
- Master's Degree from Syracuse University, *summa cum laude*
- Continuing Licenses in English, Drama, and Speech Communications
- Proven effective in school leadership roles, including Department Chair
- Trained and experienced in the New Tech Network model of Project Based Learning, including 21st century technology skills
- AP certified, Newspaper and Yearbook Adviser, WCPSS Mentor certified
- iLead 21 Facilitator, Trainer, and Consultant
- Developed award winning programs in Theater, Speech & Debate, Character Education, and Mock Trial

Experience

Southeast Raleigh Magnet High Raleigh, North Carolina 07/06-present

English Teacher and Leadership Facilitator

- Taught English courses and electives in Speech, Newspaper, and Yearbook
- Piloted the 1st leadership courses
- Served as team leader for the Leadership PLT; Lead Facilitator for the iLead 21 Program
- Lead Teacher for 12th grade PLT and Department Chair in 2011 to present
- Served on the NCSOS English Review team
- New Tech Network teacher, trained and experienced in the Project Based Learning model
- Served on Magnet Grant Committee and School Improvement Committee, designed Academic Coaching Curriculum, Coached Graduation Project
- Conference presenter NC STEM
- Teacher of the Year building finalist 6 years in a row

Green Hope High School Cary, North Carolina 8/00-6/04

English and Drama Teacher

- Taught English and electives in Drama, Speech, and Newspaper
- Character Education facilitator; coached Mock Trial team to the state finals
- Directed several plays and chartered the GH Chapter of International Thespians
- Served on Wake County District Level Steering Committee in Character Education
- Teacher of the Year Nominee and Vision Builder Award winner

deborahbrownnc@gmail.com
113 W. Skyhawk Dr. Cary, NC 27513 (919) 465-4401

Deborah M. Brown

Scituate High School Scituate, Massachusetts 9/97-7/99

English and Drama Teacher

- Taught English, helping to redesign and implement entire 10th curriculum to comply with new Massachusetts State Frameworks and new state standardized tests
- Taught elective courses in Speech Communications, Television Production, Media Messages and Theater Arts, including designing curriculum for 3 new courses
- Coached the award-winning drama program to the Regional and State Championship Levels
- Secured over $3,000 in grant monies for classroom projects

Fayetteville-Manlius School District Manlius, New York 9/90-6/97

English and Drama Teacher, Department Chair

- Taught English and Drama Courses at Wellwood Middle School and Fayetteville-Manlius High School. Chaired a 15 person department
- Director of Dramatics at Wellwood Middle School; Coached award winning Mock Trial Team
- Chair and representative for multiple building and district level committees

Rome Free Academy Rome, New York 9/85-8/89

English and Drama Teacher

- Taught English and elective courses
- Directed over a dozen plays and musicals; developed successful programs in dramatics and speech in which students won scholarship competitions and qualified for state and national level competitions.

Education

Syracuse University *Master of Science*, *Summa cum laude*, 4.00 GPA 5/90

Boston University *Teachers of Theatre Graduate Program* 8/87

State University of New York at Oneonta *Bachelor of Arts* 12/84

Other Training: seminars, conferences and workshops including Covey Training, Baldridge Quality Schools, New Tech Project Based Learning, Leadership 180 and iLead 21, Technology Integration, Character Education Institute with Dr. Thomas Lickona at Cortland University's Center for the 4th & 5th R's, Diversity, Crisis Team, Inclusion, Thinking Skills, Multiple Intelligences, Cooperative Learning, Discipline with Dignity and general topics related to journalism, specific authors and writing workshops.

deborahbrownnc@gmail.com
113 W. Skyhawk Dr. Cary, NC 27513 (919) 465-4401

Ian L. Finley

[redacted]

CURRICULUM VITAE

EDUCATION

2004 **MFA in Dramatic Writing, New York University**
- Rita & Burton Goldberg Departmental Scholarship recipient

2002 **BFA in Acting, University of Utah**
- Graduated Magna Cum Laude
- Presidential Scholar
- National Merit Scholar

AWARDS & RECOGNITION

2012 **Piedmont Laureate (Playwriting & Screenwriting)**
Arts Councils of Wake, Durham, Orange and Alamance Counties
- Awarded to one writer annually, "to promote awareness of and heighten appreciation for excellence in the literary arts in the Piedmont region."

2008 **Tarheel of the Week**
The News & Observer
- Awarded to 52 Triangle residents annually, "in recognition of lasting contributions to life in the Triangle area."

2004 **Harry Kondoleon Award (Playwriting)**
New York University
- Awarded to one graduate annually, "for excellent writing that pushes boundaries and challenges expectations."

2002 **Jean Kennedy Smith Award (for The Nature of the Nautilus)**
The Kennedy Center
- Awarded to one writer annually, "for the outstanding student-written script that explores the human experience of living with a disability."

2000 **1st Place (for Kaged)**
6th Annual Interactive Fiction Competition
- Awarded to one game designer annually for a text-based adventure game, as chosen by fellow game designers and enthusiasts.

RELEVANT EMPLOYMENT

2004-Present **Director of Education**
Burning Coal Theatre Company, Raleigh, NC

• Oversee the Education Department, including managing all interactions with teachers and schools, scheduling all education outreach programs, booking residencies and performances, organizing advertising and press, and writing educational materials and related grants.
• Design curriculum for and teach long and term residencies in North Carolina elementary, middle and high English and drama classrooms. Subjects include Shakespeare, playwriting, movement technique, and theatre history. In 2011-12, served over 25 different schools with residency programs.
• Teach college-level adult courses three times a year on Shakespeare, playwriting, and physical theatre.
• Directed student productions of *The Tempest, Much Ado About Nothing, The Merchant of Venice, The Taming of the Shrew, Macbeth, The Caucasian Chalk Circle, Pvt. Wars, The Misanthrope, Ring Round the Moon*. Also served as musical director for productions of *Into the Woods, Much Ado About Nothing, A Midsummer Night's Dream* and *Seussical Jr.*
• Wrote the *How To Play* playwriting/screenwriting curriculum, and led teacher training sessions with North Carolina teachers focused on how to integrate playwriting into their classrooms increase overall literacy.
• Developed and performed the *Shakescenes* lecture/performance series, introducing elementary and middle school students to Shakespeare on stage.
• Work as Project Manager for Burning Coal's educational tours to New York City and London. Management involves booking transportation, accommodations and events for large groups (60 students and 30 chaperones), overseeing budget, cash flow, and record keeping, as well as leading the tours on the ground.
• Manage the yearly *KidsWrite!* festival of student-written plays, including acting as dramaturge on all scripts, and overseeing budgets, fundraising, advertising, casting, and hiring of technical staff.
• Plan, manage, and teach theatre conservatories of 15-30 students twice a year. Areas of study include Shakespeare in performance, Viewpoints movement work, and text analysis. Directed conservatory productions of *Twelfth Night, Titus Andronicus, Romeo & Juliet, As You Like It, The Comedy of Errors, Richard III, Henry IV Part 1* and *Love's Labour's Lost.*

2005-Present **Resident Playwright**
Burning Coal Theatre Company, Raleigh, NC

• Served as writer and project coordinator for the three-year workshop process of Burning Coal's original work, *1960.* Managed all research and interviews related to the performance, oversaw actor workshops, and wrote the production script.
• Write plays for various commissions; historical pieces for the North Carolina Museum of History, Raleigh City Museum and the National Genealogical Society; and a series of site-specific works based on the history of Raleigh's Fayetteville Street, Mordecai House, City Cemetery, and Oakwood Cemetery.

2007 **Adjunct Professor of Screenwriting**
Southern Methodist University, Dallas TX

• Taught Screenwriting Fundamentals course, including designing curriculum and reading lists, grading written material, and leading the class.

2007 **Test Prep Instructor in Language & Math**
Karen Dillard College Prep, Plano TX

• Taught PSAT/SAT/ACT test preparation courses on all subject areas (Critical Reading, Writing and Math). One of only three instructors at the Plano campus authorized to teach both verbal and math classes.

2004 **Educational Aide**
Young Playwrights Inc., New York, NY

• Helped establish and maintain playwriting residencies in NYC public schools.
• Wrote supplementary material for and assisted with educational programs of the national *Young Playwrights Festival.*
• Assisted with daily office management, including maintaining databases, drafting correspondence, and completing research.
• Served as a reader for submissions to the *Young Playwrights Festival.*

1999-2002 **Lead Teacher/Resident Playwright**
University of Utah's *Youtheatre*, Salt Lake City, UT

• Managed a company of 10-20 young actors, leading them through the development of an original, ensemble-written play, twice a year.
• Directed up to three student productions each year on the campus of the University of Utah.
• Taught a variety of classes, including playwriting, Shakespearean performance, basic acting, and theatre history.

ORIGINAL PLAYS

Jude the Obscure, Parts 1 & 2, two part adaptation of Hardy's novel
2012 Burning Coal Theatre Company, Raleigh *(upcoming)*

Green Square, full-length play
2012 Hubris Productions, Chicago (*upcoming*)
2008 Theatre of the Expendable, New York (*reading*)
2004 First Look Theatre Company, New York (*reading*)

Suspense ten-minute play
2011 10 by 10 Festival in the Triangle, Chapel Hill
2010 Bare Theatre Company, Durham
2004 Vital Signs Festival, New York
2003 NYU Marathon of New Works, New York

Good Neighbors, site-specific one-act play
2011 Burning Coal Theatre Company, Raleigh

A Walk Through the Pages of History, site-specific one-act play
2011 Burning Coal Theatre Company, Raleigh
The Ghosts of Fayettville Street, site-specific one-act play
2010 Burning Coal Theatre Company, Raleigh
Seventy Years on Salisbury Street, benefit performance
2010 Burning Coal Theatre Company, Raleigh
Fayetteville Street Follies, site-specific one-act play
2010 Burning Coal Theatre Company, Raleigh
Oakwod Generations, site-specific one-act play
2010 Burning Coal Theatre Company, Raleigh
1960, full-length play
2009 Burning Coal Theatre Company, Raleigh
Fayetteville Street/Main Street, site-specific one-act play
2008 Burning Coal Theatre Company, Raleigh
Remembrance: City Cemetery, site-specific full-length play
2008 Burning Coal Theatre Company, Raleigh
Elegies, site-specific full-length play
2008 Burning Coal Theatre Company, Raleigh
An Oakwood Tapestry, site-specific full-length play
2007 Burning Coal Theatre Company, Raleigh
Carved in Stone, site-specific full-length play
2006 Burning Coal Theatre Company, Raleigh
Oakwood, site-specific full-length play
2006 Burning Coal Theatre Company, Raleigh
Giblet, ten-minute play
2005 Vital Signs Festival, New York
Walking with Angels, full-length musical (book)
2005 Burning Coal Theatre Company, Raleigh (*reading*)
Nightingale Song, full-length play
2004 First Look Theatre Company, New York
Haiti, ten-minute play
2005 Atlantis Playmakers, Billerica
2003 BRIC Studio Theatre, New York
The Impresario, adaptation of Mozart operetta
2002 Florida Grand Opera, Miami
2001 Gardner Hall, Salt Lake City
The Nature of the Nautilus, full-length play for deaf performers
2002 American College Theatre Festival, Hayward
2001 Lab Theatre, Salt Lake City
You Can Say That Again: A Trio for Secretaries, ten-minute play
2001 American College Theatre Festival, Fresno
2000 Experiments in Ink Festival, Salt Lake City

OTHER WRITING

FILM

Your Host: Sir Walter Raleigh, video displays
2011 Raleigh City Museum, Raleigh
Behind the Veneer, video displays
2010 North Carolina Museum of History, Raleigh
Freedom to Choose, scripted reality show pilot
2006 Pointed Films, Dallas

COMPUTER GAME DESIGN

Klockwerk: The Shadow in the Cathedral, Interactive Fiction
2008 Textfyre Inc.
Kaged, Interactive Fiction
2000 1st Place, International Interactive Fiction Competition
Exhibition, Interactive Fiction
1999 5th Place, International Interactive Fiction Competition
• XYZZY Award nominee, Best NPC
• XYZZY Award nominee, Best PC
Babel, Interactive Fiction
1997 2nd Place, International Interactive Fiction Competition
• XYZZY Award winner, Best Story
• XYZZY Award nominee, Best PC

PROFESSIONAL ACTING CREDITS

Pablo	*Man of La Mancha (upcoming)*	Burning Coal Theatre Company
Simon Stimson	*Our Town*	Justice Theatre Project
Malvolio	*Twelfth Night*	Burning Coal Theatre Company
Alex	*Bowling with Blueberries*	Burning Coal Theatre Company
Meeker	*Inherit the Wind*	Burning Coal Theatre Company
Stanley	*Elegies*	Burning Coal Theatre Company
Karolyi	*Pentecost*	Burning Coal Theatre Company
Holden	*Carved in Stone*	Burning Coal Theatre Company
Courier	*1776*	Burning Coal Theatre Company
Lt. Walsh	*Oakwood*	Burning Coal Theatre Company
Dr. Bradman	*Blithe Spirit*	Meredith College (guest artist)
Biondello	*The Taming of the Shrew*	Burning Coal Theatre Company
Officer	*Acdntl. Death of an Anarchist*	Burning Coal Theatre Company
Freddy	*James Joyce's The Dead*	Burning Coal Theatre Company
Concierge	*Scenes from Childhood*	First Look Theatre Company

PRESS

"1960 - The Play," NPR/WUNC, April 23, 2009
http://wunc.org/programs/news/archive/Nli0423_1960.mp3/view

"'1960' enlivens history," *News & Observer*, April 14, 2009
http://www.newsobserver.com/lifestyles/arts_entertainment/theater_reviews/story/1484148.html

"Main Street/Fayetteville Street," NPR/WUNC, November 14, 2008
http://wunc.org/tsot/archive/sot1114b08.mp3/view

"Playwright brings local history to life," *News & Observer*, November 9, 2008
http://www.newsobserver.com/print/sunday/city_state/story/1287839.html

"Cemetery yields dramatic tales," News & Observer, May 22, 2008
http://www.newsobserver.com/105/story1081097.html

REFERENCES

Jerome Davis
Artistic Director, Burning Coal Theatre Company
[redacted]
burning_coal@ipass.net

Gary Garrison
Executive Director, The Dramatists Guild
[redacted]
(212) 398-9366
ggarrison@dramatistsguild.com

Gina Winter
Theatre Instructor, Apex High School
[redacted]
(919) 387-3016
gwinter@wcpss.net

LARA BRONGO PACIFICI

[redacted]

PROFESSIONAL EXPERIENCE

Feb 2012 – present	School Partnership Liaison, North Carolina State University, Raleigh, NC.
Fall 2011	University Supervisor, North Carolina State University, Raleigh, NC.
2010 - 2011	Assistant Professor of Biology Education, Department of Biology and Physics, Kennesaw State University, Kennesaw, GA.
2008 – May 2010	Graduate Assistant, Center for Undergraduate Research Opportunities (CURO) Apprentice Program, University of Georgia, Athens, GA.
2007 – 2008	Graduate Assistant, Department of Mathematics and Science Education, University of Georgia, Athens, GA.
2004 – 2007	Science Teacher, Raleigh Charter High School, Raleigh, NC.
2003 – 2004	Substitute Teacher, Wake County Public Schools, NC.
2001 – 2003	Graduate Assistant, Wildlife Science, Auburn University, Auburn, AL.
2000 – 2001	Research Intern, Cetacean Behavior Laboratory, San Diego State University, San Diego, CA.
Fall 1999	Undergraduate Assistant, Forestry, SUNY ESF, Syracuse, NY.
Summer 1999	Research Intern, Adirondack Ecological Center, Newcomb, NY.

EDUCATION

2007 – 2010	Ph.D., Science Education, University of Georgia, Athens, GA.
2001 – 2003	M.S., Wildlife Science, Auburn University, Auburn, AL.
1996 – 2000	B.S., Environmental and Forest Biology, State University of New York College of Environmental Science and Forestry (SUNY ESF), Syracuse, NY.
Spring 2000	Semester at Sea Study Abroad Program, University of Pittsburgh.

DISSERTATION

Supporting Undergraduate Research: What Factors Influence Student Participation?

Dissertation Committee: Norman Thomson, Ph.D. Science Education (Committee Chair)
Margurite Brickman, Ph.D. Biological Sciences
Thomas Koballa, Jr., Ph.D. Science Education
Craig Miller, Ph.D. Natural Resources

Completed May, 2010

PROFESSIONAL ACTIVITIES

Teaching

Kennesaw State University

BED 6416 Teaching of Biology: Fall 2010
SCI 7726 Life Science for Teachers: Summer 2010

University of Georgia

ESCI 6450 Science Curriculum and Learning (Teaching Internship): Spring 2009.
HONS 2010 Undergraduate Research Forum (TA): 2008-09, 2009-2010.
BIOL 1103 Basic Concepts in Biology (Instructor of Record): Summer 2008.
FORS 3810 Society and Natural Resources (TA): Spring 2008, Spring 2009.

Raleigh Charter High School

Advanced Placement Biology: 2005 – 2006, 2006 – 2007.
Enriched Biology: 2004 – 2005, 2005 – 2006, 2006 – 2007.
Wildlife Ecology: 2006 – 2007.
Advanced Biology: 2003 – 2004, 2004 – 2005, 2005 – 2006.
Advanced Placement Environmental Science: 2003 – 2004.

Auburn University

Principles of Wildlife Management Lab (TA): Fall 2001, Fall 2002.
Wildlife Ecology and Management I Lab (TA): Fall 2001, Fall 2001.
Wildlife Ecology and Management II Lab (TA): Spring 2001, Spring 2002.

SUNY ESF

Dendrology Lab (TA): Fall 1999.

Supervision, Coordination, and Coaching

North Carolina State University

Middle and High School Science Student Teacher Supervision: Fall 2011

Kennesaw State University

MAT Biology Program Coordinator
BED 6475 Teaching of Biology High School Practicum: Spring 2011
BED 6417 Teaching of Biology Middle School Practicum: Fall 2010

University of Georgia

CURO Apprentices: Fall 2008 – Present.
Science student-teaching interns: Fall 2007.

Raleigh Charter High School

Faculty Advisor, Student Government Association: 2005 – 2006, 2006 – 2007.
Faculty Advisor, Ronald McDonald House Citizenship Group: 2005 – 2006, 2006 – 2007.
Assistant Girls Soccer Coach: 2005 – 2007
Assistant Science Olympiad Coach: 2005 – 2007
Assistant Girls Volleyball Coach: 2004

Auburn University

Research Supervisor, Pisgah Black Bear Sanctuary Research Team: 2002.

SCHOLARLY ACTIVITIES

Publications (Lara B. Pacifici has also published under the name Lara L. Brongo).

Pacifici, L.B. & Thomson, N. (2011). A Comparison of Influences and Experiences Between Pre-med and Non-pre-med Students. *Life Sciences Education,*10,199-208.

Pacifici, L.B., & Thomson, N. (2011). What do they expect? A comparison of student expectations and outcomes of undergraduate research experiences. *Journal of College Science Teaching*, September/October 2011.

Pacifici, L.B. (2011). Spooky science. *The Science Teacher,* 34, 80-83.

Pacifici, L., Miller, C., & Thomson, N. (2009). Student Participation in Ecological Research: Preliminary insights from Students' Experiences in the Smokies. *Journal of Natural Resources and Life Sciences Education,* 38, 159-166.

Mitchell, M. S., L. B. Pacifici, J. B. Grand, and R. A. Powell. (2009). Contributions of vital rates to growth of a protected population of American black bears. *Ursus*, 20, 77-84.

Pacifici, L. (2008). Caught in their tracks: student-developed research in wildlife ecology. *The Science Teacher*. 75, 8-13.

Reynolds-Hogland, M.J., Pacifici, L.B., & Mitchell, M.S. (2007). Linking resources with demography to understand resource limitation for bears. *Journal of Applied Ecology*, 44, 1166-1175.

Brongo, L., Mitchell, M., & Grand, J. (2005). Effects of trapping with bait on bait-station indices to black bear abundance. *Wildlife Society Bulletin*, 33, 1357-1361.

Brongo, L., Mitchell, M., and Grand, J. (2005). Long-term analysis of survival, fertility, and population growth rate of black bears in North Carolina. *Journal of Mammalogy*, 86, 1029-1035.

Brongo, L. (2003). *Demography of black bears in the Pisgah Bear Sanctuary*. M.S. thesis, Auburn University, 77 pages.

Presentations

Pacifici, L. (January 2011). Undergraduate Science Research Experiences: Student Motivations and Perceptions of Accessibility. Association of Science Teacher Education Annual International Conference, Minneapolis, MN.

Pacifici, L., Bromfield-Lee, D., Rushton, G., Dias, M., & Rosengrant, D. (October 2010). Beyond teaching "science" teachers: Reflections on discipline-specific methods courses. Southern Association for Science Teacher Education, Agnes Scott College, Decatur, GA.

Pacifici, L.B. (October 2009). Teacher Research Experiences. Southern Association for Science Teacher Education, Kennesaw State University, GA.

Pacifici, L.B. (March 2009 and April 2009). Skeletons in the Classroom: Teacher Perceptions of an Inquiry Unit on Evolution. National Association of Science Teachers, New Orleans, LA and National Association for Research in Science Teaching, Garden Grove, CA.

Pacifici, L.B. (January 2009). The Use of Online Journals to Explore the Experiences of High School Summer Research Interns. Association of Science Teacher Education Annual International Conference, Hartford, CT.

Pacifici, L.B. (November 2008). Students study in the Smokies: High School Research Experiences in the GSMNP. Contributed oral session. Annual meeting of The Wildlife Society, Miami, FL.

Pacifici, L.B. (October 2008). New Work with Working Groups. Science Education at the Crossroads, Alta, UT.

Pacifici, L.B. and Mahood, K. (August 2008). Projects linking science research and the community: Examples and ideas. Special session organizer. Annual meeting of the Ecological Society of America, Milwaukee, WI.

Pacifici, L.B. (August 2008). Undergraduate research in ecology: Implications and future directions. Contributed oral session. Annual meeting of the Ecological Society of America, Milwaukee, WI.

Pacifici, L.B. (March 2008). Inquiry Safari: Student inquiry to uncover human evolution. Poster presentation at the Educational Forum on Africa. UGA.

Pacifici, L.B. (February 15, 2008). Teacher and student opportunities for participation in science research. Oral presentation at the Georgia Science Teachers' Association Annual Meeting in Athens, GA.

Pacifici, L.B. (September, 2007). Non-Invasive, student-developed, small mammal research in the science classroom. Poster presentation at The Wildlife Society Annual Conference in Tuscon, AZ.

Brongo, L.L. (September, 2003). Demography of black bears in the Pisgah Bear Sanctuary of North Carolina. Oral presentation at The Wildlife Society Annual Conference in Burlington, VT.

Workshops

Pacifici, L., & Dias, M. (July 2011). Research in Biology Integrated with Teaching (R.i.B.I.T.) teacher quality summer workshop.

Dias, M., & Pacifici, L. (September 25, 2010). Culturally Responsive Pedagogy in Science. Workshop at the Kennesaw State University Noyce Scholars Retreat.

Pacifici, L.B. (Spring 2009) Duke Talent Identification Program (TIP) Scholar Weekends

Thomson, N., O'Dell, S. & Pacifici, L. (January 11, 2008). Inquiry Safari. Workshop at the Association of Science Teacher Education Annual Meeting in St. Louis, MO.

Curriculum Development

Pacifici, L.B. (2006) Syngenta's Development of B.T. Corn. Genetic Engineering and Biotechnology Unit for the Contemporary Science Center: www.contemporarysciencecenter.org, Research Triangle Park, NC.

Grants

Pacifici, L.B. & Dias, M. (awarded February 2011). Research in Biology Incorporated in Teaching. Georgia Teacher Quality Grants. Amount: $31,500.

Professional Service

International Journal of Science Education (2010 and 2011). Manuscript reviewer.

National Association for Research in Science Teaching (2009 and 2010) Conference abstract reviewer.

University of Georgia Undergraduate Research Symposium (2009 and 2010). Graduate reviewer.

Association of Science Teacher Education (2008). Conference abstract reviewer.

Service to Schools

Regional Science Bowl Co-Coordinator. February 5, 2011. Kennesaw, GA.

Pine County Middle School Science Fair Judge. December 9, 2010. Kennesaw, GA.

Thomson, N., Beall, S., & Pacifici, L. (November 2008). Inquiry Safari. Invited course for visiting high school AP Biology students. University of Georgia, Athens, GA.

Pacifici, L. & Thomson, N. (Spring 2008). Inquiry Safari. Invited class lecture for Biology and AP biology classes at the following high schools and middle schools in Georgia: Loganville, Grayson, Birkmar, Cedar Shoals, Norcross, Morgan County, and East Jackson.

Jackson, D. & Pacifici, L. (December 11, 2007). Exploring extant and fossil skulls using replicas. Invited workshop presentation, Grades 4 & 5. Barrow Elementary School, Athens, GA.

Thomson, N. & Pacifici, L. (December 3-5, 2007). Inquiry Safari. Invited class lectures in a pre-service teaching course. University of Georgia, Athens, GA.

Committees and Working Groups

Biology Faculty Council, Kennesaw State University, 2011.
Biology Curriculum Assessment Committee, Kennesaw State University, 2011.
Teacher Education Council, Kennesaw State University, 2010-2011.
Science Teacher Education Committee, Kennesaw State University. 2010-2011.
Biology Curriculum Assessment Committee, Kennesaw State University, 2010.
University of Georgia Academic Honesty Council . 2008-2010.
Graduate student representative to the Awards Committee of the Association of Science Teacher Education. 2009-2010.
Graduate student representative to the Membership Committee of the Association of Science Teacher Education. 2008-2009.
College and University Education Working Group – The Wildlife Society. 2008-2009.
University of Georgia Science Educator Learning Community. 2007-2008, 2008-2009, 2009-2010.
University of Georgia Women in Science Graduate Discussion Group. 2008-2009.
Diversity Day Organization Committee for Math and Science Education. 2007.

Volunteering

National Science Olympiad Event Leader – Decathalon Event (2009). Augusta, GA.
Ecological Society of America conference volunteer (August, 2008). ESA annual conference, Milwaukee, WI.
Georgia State Science Olympiad Competition Appeals Judge (March 29, 2008). Augusta State University, Augusta, GA.
Georgia Science Teacher Association Annual Meeting Volunteer (February 2008). Athens, GA.
Complexity Science and Education Conference Volunteer (February 2008). Athens, GA.
Science Bowl Volunteer. (February 7, 2009; January 26, 2008). Athens, GA.
National Association of Biology Teachers Annual Meeting Volunteer (December 2007). Atlanta, GA.

Professional Associations

- National Science Teacher Association
- Association for Science Teacher Education
- National Association for Research in Science Teaching

AWARDS, HONORS, SCHOLARSHIPS

University of Georgia Department of Mathematics and Science Education Travel Award (2009).
Commencement Speaker (2009). Raleigh Charter High School Graduation.
Women Pioneers in Education Scholarship. (2008). UGA College of Education, Athens, GA.
Best Poster Presentation. (2008). UGA Educational Forum, Athens, GA.
George C. Moore Fellowship for outstanding graduate student in wildlife science. (2003). Auburn University, Auburn, AL.
Ralph T. King Memorial Award for outstanding student in wildlife biology. (2000). SUNY ESF.

Amanda Faith Marvelle

[redacted]

[redacted]

EDUCATION

8/2004-5/2010 **University of North Carolina at Chapel Hill**
Ph.D., Curriculum in Genetics and Molecular Biology
Advisor: Dr. Karen Mohlke
Dissertation Title: Genetics of Obesity-related Traits and Lipoproteins in Filipino Women

8/1999-5/2003 **Wofford College, Spartanburg, SC**
B.S., Major: Biology with an Emphasis in Computational Science, *Cum Laude*
Study Abroad: Denmark's International Study Program, Marine Biology, Spring 2003

RESEARCH AND WORK EXPERIENCE

10/2010-present **Contemporary Science Center/Research Triangle High School, Durham, NC**
Education Director and High School Development Project Manager
Coordinating and managing aspects of marketing, educational focus, and school development for a new charter high school in RTP; Teaching applied biology field studies; Developing teaching modules; Implementing curriculum for Nanotbiotechnology summer camp

3/2005-5/2010 **Department of Genetics at University of North Carolina at Chapel Hill**
Graduate Student & Research Fellow, Advisor: Dr. Karen Mohlke
Projects: Association of genetic variants with obesity-related quantitative traits, plasma lipoproteins, and triglycerides in the women of the Cebu Longitudinal Health and Nutrition Survey cohort. The functional role of HDL-C associated polymorphisms in *GALNT2*.

7/2003-7/2004 **Pediatric Reproductive Endocrinology Branch at the National Institute of Child and Human Development, National Institutes of Health, Bethesda, MD**
Post-baccalaureate Intramural Research Training Award Fellow, Advisor: Dr. Karel Pacak
Projects: Protein expression profiles of pheochromocytoma tumors and the role of histone deacetylase inhibitor drugs on the uptake of radiation therapy in mouse pheochromocytoma cells.

5/2002-8/2002 **Pediatric Reproductive Endocrinology Branch at the National Institute of Child and Human Development, National Institutes of Health, Bethesda, MD**
Summer Research Fellowship Program Fellow, Advisor: Dr. Karel Pacak
Projects: Neurosecretory granule formation in pheochromocytoma cells.

1/2002 **Department of Gerontology at Massachusetts General Hospital, Boston, MA**
Winter-term intern, Advisor: Dr. Deborah Blacker
Projects: Ethical, legal, and social implications of Alzheimer's disease genetics from the critical perspective of a group at high risk for the disease.

5/2001-8/2001 **Genetic Epidemiology, Greenwood Genetic Center, Greenwood, SC**
Summer intern, Advisor: Dr. Julianne Collins
Projects: Recurrence risk of mental retardation, linkage analyses of X-linked mental retardation families, and folate status of Honduran women.

SCHOLARSHIPS, FELLOWSHIPS, & HONORS

9/2009	*Sarah Graham Kenan and Hobgood Edwards Dissertation Fellowship:* Selected among all Curriculum in Genetics and Molecular Biology students graduating in 2010 for excellence in science and leadership.
6/2006 – 6/2009	*University of North Carolina Integrative Vascular Biology (IVB) Predoctoral Fellowship*: Selected among graduate students from multiple departments and curricula across UNC-Chapel Hill. Provided full stipend, tuition, and travel expenses to attend a yearly national meeting.
5/2008	*Award for Outstanding Poster Presentation, Integrative Vascular Biology and Carolina Cardiovascular Biology Center Spring Research Symposium.* Chapel Hill, NC.
8/1999-5/2003	*Wofford Scholar*: A competitive merit-based four-year scholarship.

PUBLICATIONS

Collins JS, **Marvelle AF**, Stevenson RE. Sibling recurrence in intellectual disability of unknown cause. *Clin Genet*. 2011 May; 79(5):498-500.

Martiniova L, Perera SM, Brouwers FM, Alesci S, Abu-Asab M, **Marvelle AF**, Kiesewetter DO, Thomasson D, Morris JC, Kvetnansky R, Tischler AS, Reynolds JC, Fojo AT, Pacak K: Increased uptake of [^{123}I]-meta-iodobenzylguanidine, [^{18}F]-fluorodopamine and [^{3}H]-norepinephrine in mouse pheochromocytoma cells and tumors after treatment with the histone deacetylase inhibitors. *Endocr Relat Cancer*. 2011 Jan 13; 18(1):143-157.

Croteau-Chonka DC, **Marvelle AF**, Lange EM, Lee NR, Adair LS, Lange LA, Mohlke KL: Genome-wide association study of anthropometric traits and evidence of interactions with age and study year in Filipino women. *Obesity*. 2010 Oct 21. [Epub ahead of print].

Lange LA, Croteau-Chonka DC, **Marvelle AF**, Qin L, Gaulton KJ, Kuzawa CW, McDade TW, Wang Y, Li Y, Levy S, Borja JB, Lange EM, Adair LS, Mohlke KL: Genome-wide association study of homovysteine levels in Filipinos provides evidence for *CPS1* in women and a stronger *MTHFR* effect in young adults. *Hum Mol Genet*. 2010 May 15; 19(10):2050-8.

Zinman L, Liu HN, Sato C, Wakutani Y, **Marvelle AF**, Moreno D, Morrison KE, Mohlke KL, Bilbao J, Robertson J, Rogaeva E: A mechanism for low penetrance in an ALS family with a novel *SOD1* deletion. Neurology. 2009 Mar 31; 72(13):1153-9.

Marvelle AF, Lange LA, Qin L, Adair LS, Mohlke KL: Association of *FTO* with obesity-related traits in the Cebu Longitudinal Health and Nutrition Survey (CLHNS) cohort. *Diabetes*. 2008 Jul; 57(7): 1987-91.

Zeggini E, Scott LJ, Saxena R, Voight BF, Marchini JL, Hu T, de Bakker PI, Abecasis GR, Almgren P, Andersen G, Ardlie K, Boström KB, Bergman RN, Bonnycastle LL, Borch-Johnsen K, Burtt NP, Chen H, Chines PS, Daly MJ, Deodhar P, Ding CJ, Doney AS, Duren WL, Elliott KS, Erdos MR, Frayling TM, Freathy RM, Gianniny L, Grallert H, Grarup N, Groves CJ, Guiducci C, Hansen T, Herder C, Hitman GA, Hughes TE, Isomaa B, Jackson AU, Jørgensen T, Kong A, Kubalanza K, Kuruvilla FG, Kuusisto J, Langenberg C, Lango H, Lauritzen T, Li Y, Lindgren CM, Lyssenko V, **Marvelle AF**, Meisinger C, Midthjell K, Mohlke KL, Morken MA, Morris AD, Narisu N, Nilsson P, Owen KR, Palmer CN, Payne F, Perry JR, Pettersen E, Platou C, Prokopenko I, Qi L, Qin L, Rayner NW, Rees M, Roix JJ, Sandbæk A, Shields B, Sjögren M, Steinthorsdottir V, Stringham HM, Swift AJ, Thorleifsson G, Thorsteinsdottir U, Timpson NJ, Tuomi T, Tuomilehto J, Walker M, Watanabe RM, Weedon MN, Willer CJ; Wellcome Trust Case Control Consortium, Illig T, Hveem K, Hu FB, Laakso M, Stefansson K, Pedersen O, Wareham NJ, Barroso I, Hattersley AT, Collins FS, Groop L, McCarthy MI, Boehnke M, Altshuler D: Meta-analysis of genome-wide association data and large-scale replication identifies additional susceptibility loci for type 2 diabetes. *Nat Genet.* 2008 May;40(5): 638-45.

PUBLICATIONS (Continued)

Marvelle AF, Lange LA, Qin L, Wang Y, Lange EM, Adair LS, Mohlke KL: Comparison of ENCODE region SNPs between Cebu Filipino and Asian HapMap samples. *J Hum Genet*. 2007 52(9): 729-37.

Brouwers FM, Gläsker S, **Nave AF**, Vortmeyer AO, Lubensky I, Huang S, Abu-Asab MS, Eisenhofer G, Weil RJ, Park DM, Linehan WM, Pacak K, Zhuang Z: Proteomic profiling of von Hippel-Lindau syndrome and multiple endocrine neoplasia type 2 pheochromocytomas reveals different expression of chromogranin B. *Endocr Relat Cancer*. 2007 14(2): 463-71.

Holden KR, Collins JS, Greene JF, Hinkle S, **Nave AF**, Portillo JM, Page GP, Stevenson RE: Honduran Neural Tube Defect Project Team. Dietary intake and blood folate levels in Honduran women of childbearing age. *J Child Neurol.* 2002 17(5): 341-6.

ORAL ACADEMIC PRESENTATIONS

The genetics of obesity-related traits and lipoproteins in Filipino women. Marvelle AF. Department of Genetics Wednesday Research Colloquia. Chapel Hill, NC October 28, 2009. **Department-wide seminar.**

Identifying the functional polymorphism in *GALNT2* that is associated with HDL-cholesterol. **Marvelle AF**. *Integrative Vascular Biology Bi-weekly Seminar Series*. Chapel Hill, NC. July 8, 2009.

Genome-wide association study of triglycerides, HDL and LDL cholesterol in the Cebu Longitudinal Health and Nutrition Survey (CLHNS) cohort. **Marvelle AF**. *UNC-CH Curriculum in Genetics and Molecular Biology Tuesday Seminar Series.* Chapel Hill, NC. October 21, 2008.

Association of FTO with BMI and body size in the Cebu Longitudinal Health and Nutritional Survey (CLHNS) cohort. **Marvelle AF**. *Department of Genetics and the Curriculum in Genetics and Molecular Biology Yearly Retreat.* Asheville, NC. September 8, 2008. **Department-wide seminar.**

The genetics of obesity- and lipid-related traits. **Marvelle AF**. *Integrative Vascular Biology Bi-weekly Seminar Series*. Chapel Hill, NC. May 14, 2008.

Investigating the genetics of obesity and obesity-related traits in a cohort of Filipino women. **Marvelle AF**. *UNC-CH Curriculum in Genetics and Molecular Biology Tuesday Seminar Series.* Chapel Hill, NC. November 6, 2007.

Association of FTO with BMI and body size in the Cebu Longitudinal Health and Nutrition Survey cohort. **Marvelle AF**. *Cardiovascular Disease Epidemiology Seminar Series.* Chapel Hill, NC. September 18, 2007.

Investigating genetic structure and susceptibility to obesity in a Filipino cohort. **Nave AF**. *Department of Genetics Weekly Research Colloquium.* Chapel Hill, NC. May 9, 2007. **Department-wide seminar.**

The genetics of obesity in a cohort of women from Cebu, Philippines. **Nave AF**. *Integrative Vascular Biology Bi-weekly Seminar Series*. Chapel Hill, NC. February 28, 2007.

ORAL SCIENTIFIC PRESENTATIONS (Continued)

Genetic analysis of a Cebu Filipino cohort. **Nave AF**. *UNC-CH Curriculum in Genetics and Molecular Biology Recruitment Symposium.* Chapel Hill, NC. February 13, 2007. **Chosen among senior students to present to potential incoming Curriculum of Genetics and Molecular Biology students.**

Patterns of genetic variation in a Filipino population. **Nave AF**. UNC-CH Curriculum in Genetics and Molecular Biology Recruitment Symposium. Chapel Hill, NC. March 11, 2006. **Chosen among senior students to present to potential incoming Curriculum of Genetics and Molecular Biology students.**

Looking for association between markers at the *CREBBP* and *MAFA* loci and Type 2 diabetes. **Nave AF.** *Curriculum in Genetics and Molecular Biology Rotation Talks.* Chapel Hill, NC. June 2, 2005.

Linking Computer Science and Genetics. **Nave AF**. *Society for Industrial and Applied Mathematics 50th Annual Conference.* Philadelphia, PA. July 2002. **National Conference.**

Linking Computer Science and Genetics. **Nave AF**. *Mid-Southeast Chapter ACM Fall Conference*. Pigeon Forge, TN. October 2001.

SELECT ACADEMIC POSTER PRESENTATIONS OUT OF 12 TOTAL

Genome-wide Association Study of High-density Lipoprotein Cholesterol and Triglycerides in the Cebu Longitudinal Health and Nutrition Survey (CLHNS) Cohort. **Marvelle AF**, Lange LA, Lange EM, Lee N, Kuzawa C, Adair LS, Mohlke KL. *The Integrative Vascular Biology Program and The Carolina Cardiovascular Biology Center Spring Research Symposium.* Chapel Hill, NC. March 31, 2009.

Association of *FTO* and *ADRB3* with BMI and Body Size in the Cebu Longitudinal Health and Nutrition Survey (CLHNS) Cohort. **Marvelle AF**, Lange LA, Qin L, Adair LS, Mohlke KL. *The Integrative Vascular Biology Program and The Carolina Cardiovascular Biology Center Spring Research Symposium.* Chapel Hill, NC. March 10, 2008. **Award-winning poster.**

Association of FTO with BMI and Body Size in the Cebu Longitudinal Health and Nutrition Survey (CLHNS) Cohort. **Marvelle AF**, Lange LA, Qin L, Adair LS, Mohlke KL. *The Obesity Society's Annual Scientific Meeting.* New Orleans, LA. October 23, 2007. **National Meeting.**

Linkage disequilibrium and tag single nucleotide polymorphism transferability between a cohort from Cebu, Philippines and the four populations genotyped by HapMap. **Nave AF**, Lange LA, Wang Y, Adair LS, Mohlke KL. *American Society for Human Genetics*. New Orleans, LA. October 10, 2006. **National Meeting.**

Association of a variant in the *CREBBP* gene with Type 2 Diabetes in Finns. **Nave AF**, Gaulton KJ, Qin L, Mohlke KL, the FUSION Study Group. *Department of Genetics and the Curriculum in Genetics and Molecular Biology Yearly Retreat.* Wilmington, NC. September 16, 2005.

Investigating frontotemporal dementia and linkage on chromosome 17q. **Nave AF**, Wilhelmsen KC. *Curriculum in Genetics and Molecular Biology Rotation Poster Presentation.* Chapel Hill, NC. March 11, 2005.

The histone deacetetylase inhibitors FR901228 and Trichostatin A increase cellular [^{3}H]-norepinephrine uptake and inhibit cell proliferation of mouse pheochromocytoma cells. **Nave AF**, Brouwers FM, Alesci S, Perera SM, Abu-Asab MS, Kukura C, Calvert V, Zhan Z, Powers JF, Tischler AS, Tsokos M, Fojo AT, Pacak K. *The Endocrine Society's 86th Annual Meeting.* New Orleans, LA. June 2004. **National Meeting.**

MENTORSHIP & TEACHING EXPERIENCE

Contemporary Science Center, Durham NC

I teach middle school and high school students day-long inquiry based field studies developed around research at a company in North Carolina and an AP biology lab for homeschool students. I have developed and enhanced curriculum for our units based on Syngenta/Novozymes biotechnology, Biogen Idec biotechnology, Targecept Chemistry, and Inspire Biology. I also developed and taught curriculum for a nanobiotechnology 2011 summer camp at The Joint School of Nanoscience and Nanoengineering in Greensboro, NC.

Mentor for an undergraduate student from the Biological and Biomedical Science Program Summer Undergraduate Research Experience, University of North Carolina at Chapel Hill

Taught laboratory techniques and presentation skills to a student from University to Puerto Rico at Cayey as a part of the initiative to increase underrepresented minorities in the sciences. Summer 2009.

Teaching Assistant for Undergraduate Students, Department of Biology, University of North Carolina at Chapel Hill

Taught a recitation to 50 students. I developed several unique lectures and presented a more comprehensive review of the week's lecture material. Cell and Developmental Biology; Fall 2005

Laboratory Teaching Assistant for Undergraduate Students, Department of Biology, Wofford College, Spartanburg, SC

Assisted professor during instruction of the laboratory course and set up laboratory equipment.
*Microbiology; Fall 2002
*Molecular and Cellular Biology; Spring 2002
*Genetics and Development; Fall 2001

Organizer, Module Developer, Planning Committee Member, Website Designer, and Instructor, North Carolina DNA Day

*Organized and performed of DNA Day on Demand, a collaboration with UNC-TV to produce the DNA Day modules into video segments to be available for teachers. January, 2011 – April 2011.
*Co-developed 2008 Pharmacogenomics module for high school students taught in >40 classrooms across NC in 2008. Module selected for 2009 NC DNA Day. Developed with input from current science teachers and pre-tested on Chapel Hill high school students.
*Secured $3,000 in funding from The Institute for Pharmacogenomics and Individualized Therapy at UNC Chapel Hill to fund materials for the Pharmacogenomics module.
*Member of planning committee that organized the first North Carolina DNA day with advice from NHGRI representatives and North Carolina science teachers, Fall 2007.
*Co-designed the 2007 NC DNA Day Website, ncdnaday.org.
*DNA Day Instructor (Pharmacogenomics module developed by **Marvelle AF** and Minton SK). Charles B. Aycock High School, Pikeville, NC, April 24, 2009. Reynolds High School, Asheville, NC, April 25, 2008. Forensics, Forestview high School, Gastonia, NC, April 25 2007.
*Trained UNC and Duke graduate students and GlaxoSmithKline employees to teach the Pharmacogenomics module, Spring 2008 and 2009.
*One of two graduate students invited to attend the North Carolina Department of Public Instruction Summer Leadership Conference to introduce high school science teachers to NC DNA day. July 10, 2007.

Tutor, Triangle Residential Options for Substance Abusers (TROSA), Durham, NC

Volunteered 3 hours a week teaching math GED skills to 15 adults, Spring semester 2008.

Teaching Assistant, GlaxoSmithKline, Durham, NC

Taught *Weigh to Go* module to 25 high school students, May 18, 2007.

MENTORSHIP & TEACHING EXPERIENCE (Continued)

Invited Speaker and Discussion Leader

- Females Exceling More in Math engineering and Science (FEMMES), University of North Carolina at Chapel Hill November 6, 2010

-NHGRI Community Genetics Forum Community Conversation, Durham & Chapel Hill, NC May 12, 2006; May 15, 2006; September 16, 2006

-Grey Culbreth Middle School, Chapel Hill, NC January 26, 2007

-Smith Middle School, Science Night, Chapel Hill, NC February 23, 2006

*Performed breakout sessions of DNA extraction with students and community members

*Explained DNA and the principals and ethics of genetic testing

Lecturer, Greenwood Genetic Center, Greenwood, SC

Assisted teaching a class entitled "Linkage: How to analyze XLMR pedigrees" with Dr. Julianne Collins for the Lander University Summer Graduate Course in Human Genetics. June 2001.

LEADERSHIP

Co-Authored the Research Triangle High School Charter application submitted November 4, 2011 to the North Carolina Department of Public Instruction for the creation of a new STEM charter school

Researched, coordinated and managed aspects of virtual learning, professional development, educational focus and social media for a new experiential STEM learning high school in RTP slated to open fall 2012.

Search committee for the Post-baccalaureate Research Education Program (PREP) Coordinator position & Training Initiative in Biomedical and Biological Sciences (TIBBS) Associate Director position Chapel Hill, NC.

Selected among all biomedical and biological graduate students to interview potential candidates and give recommendations for hiring decisions. June 2009 & October 2008.

Biological & Biomedical Sciences Program Student Advisory Committee. Chapel Hill, NC.

*One of three Genetics and Molecular Biology Curriculum students selected to advise for the new umbrella program for graduate students. February 2008 to February 2009.

*Co-developed and maintain a web-based incoming student forum www.unc.edu/bbsp/forum and wiki https://gpsf-wiki.unc.edu/confluence/display/BBSP/Home.

Organization committee for *The Integrative Vascular Biology Program and The Carolina Cardiovascular Biology Center Spring Research Symposium.* March 10, 2008. Chapel Hill, NC.

*Organized the Integrative Vascular Biology invitation to speaker, Dr. Helen Hobbs.

*Determined logistics of meals, lodging, travel, and meetings outside of the symposium.

Genetics and Molecular Biology representative for the Carolina Student Biotechnology Network (CSBN). Chapel Hill, NC.

Attended representative meetings to discuss organizational goals and publicized CSBN seminars and events to Genetics and Molecular Biology Students. August 2005 to August 2008.

Recruitment Committee for the Curriculum in Genetics and Molecular Biology. Chapel Hill, NC.

Actively planned and organized all logistics for the both of the spring graduate student recruitment weekends including social activities, airport pick-up and drop-off, food, and professional seminars. Acted as a liaison for students with questions about the GMB program. Spring 2005, 2006, and 2007

LEADERSHIP (Continued)

Triangle Entrepreneur-Angel Match-Up, Chapel Hill, NC.

Attended this event where graduate students of all disciplines from Duke, NCSU, and UNC came together in multi-disciplinary teams to meet entrepreneurs, negotiate invented deal terms, and learn the initial steps needed to be a successful entrepreneur. September 10, 2005.

International Grace Hopper Conference for Women in Computer Science. Vancouver, Canada.

Invited to provide technical support for Dr. Angela Shiflet at a computational science workshop. October 2002.

College Advisory Committee for Folic Acid in South Carolina. Spartanburg, SC.

Inspired by my summer research during 2001, I volunteered to serve on this committee. My service included promoting the use of folic acid among Wofford College women through pamphlets and a folic acid awareness meeting. 2001-02 school year.

[redacted]

Melissa A. Young

Objective

Demonstrate my knowledge and skills in mathematics and education

Experience

2008-Present The Early College at Guilford Greensboro, NC

Mathematics Teacher

- Courses: Honors Algebra II, Honors Geometry, Honors Pre-Calculus
- 2011 SAS EVAAS Teacher Value- Level 5 Course: Algebra II
- 100% Proficiency on North Carolina End-Of-Course Exam
- Guilford County Schools Rookie Teacher of the Year Finalist 2008-2009 School Year
- The Early College at Guilford PTSA Teacher of the Year 2011-2012
- Accomplished Distinguished Teacher status on 2012 Summative Evaluation

2008 - 2009 Upward Bound Greensboro, NC

Mathematics Teacher

- Part- time summer and after school mathematics teacher
- Develop supplementary curriculum to strength math skills for high school students

2007-2010 Math Easy Greensboro, NC

Personal Mathematics Tutor

- Personal tutor for children grades 3-12
- Pen-point and strengthen skills to ensure success in math
- 100% Pass rate on End-of- Grade and End-of-Course Tests for my clients

Leadership & Extracurricular Activities

2009-Present The Early College at Guilford Greensboro, NC

Student Council Advisor

- Adult liaison between student government and administration
- Coordinate school wide activities & prom

2009-2011 Western Guilford High School Greensboro, NC

Varsity Cheerleading Coach

2009-Present The Early College at Guilford Greensboro, NC

School Leadership Team Member

- Teacher Representative to assist the school with writing and monitoring the School Improvement Plan.

2011-2012 Guilford County Schools Greensboro NC

Teacher Leader

- Unpack Common Core Standards, build learning units and provide resources for Geometry and Algebra II teachers in Guilford County Schools

Education

2009-2010 Western Carolina University Cullowhee, NC

- Academically & Intellectually Gifted (AIG) Certification

2004-2008 NC A&T State University Greensboro, NC

- B.S Mathematics Secondary Education
- Graduated *summa cum laude*. GPA: 3.6

S. Alexander Drake

[redacted]

Education

Masters of Education in Higher Education Administration
Auburn University – Auburn, Ala.
May 2012
Grade Point Average: 4.00/4.00

Bachelor of Arts in History (with license to teach)
Minor in American Studies
The University of North Carolina at Charlotte – Charlotte, N.C.
Cum Laude, May 2005
Grade Point Average: 3.51/4.00
Member of the North Carolina Teaching Fellows Program

Licensures

- North Carolina 'A' Teaching License, 9-12 Social Studies (exp. 6/30/2013)
- Alabama 'B' Teaching License, 6-12 General Social Science (exp. 6/30/2015)
- AP Summer Institute in U.S. History, June 2005

Teaching Experience

Social Studies Teacher
Robinson High School – Concord, N.C.
August 2005 – June 2010

- Responsible for teaching core courses aligned with the N.C. Standard Course of Study: U.S. History, World History, and Civics & Economics
- Five years' experience in teaching AP U.S. History, with over 70% of students scoring a '3' or better on the AP Exam
- Served as a reader at the AP U.S. History Exam Reading in Louisville, Kentucky from 2008 through 2012
- Participant in collaborative planning meetings for U.S. History, World History, and Civics & Economics
- Took part in implementation meetings for professional learning communities (PLCs)
- Social Studies Department's representative on the School Improvement Team for the 2009-2010 year
- Head coach of the school's award-winning quiz bowl team
- Public address announcer for football, basketball, and girls' soccer games
- Served as a media contact for the school's athletic teams as needed
- Part of the musical and visual staff for the Pride of Robinson Marching Band

History Instructor and Camp Counselor
ACE Quiz Bowl Camp – Elizabethton, Tenn.; Maryville, Tenn.; Clinton, S.C.
Summer 2007 – Summer 2010

- Instructed campers in modern United States history and military history, focusing on topics frequently seen in quiz bowl competition
- Assisted with the operation of camp functions such as nightly team tournaments

Athletics-Related Employment

Compliance Graduate Assistant
Auburn Tigers Athletic Department – Auburn, Ala.
September 2010 – May 2012

- Assist with NCAA investigations, monitoring athletic department operations, and educating coaches and staff members on NCAA, Southeastern Conference, and Auburn University policies and regulations
- Help manage paperwork for student-athletes and staff members
- Assist with gameday operations as needed

Athletic Department Associate
University of North Carolina at Charlotte – Charlotte, N.C.
September 2005 – May 2010

- Public address announcer for Charlotte 49ers volleyball, soccer, and baseball games
- Assisted in the operation of Atlantic 10 Conference Tournament and NCAA Tournament events held on the UNC Charlotte campus

Awards, Honors, and Other Experiences

- UNC Charlotte Dean's List (five semesters); UNC Charlotte Chancellor's List (one semester)
- Education Testing Service Recognition of Excellence for outstanding Praxis II score
- Contestant on "Who Wants To Be A Millionaire?" in 2007, and a current candidate in the contestant pool for "Jeopardy!"
- Keynote speaker at the 2007 UNC Charlotte Teaching Fellows senior recognition banquet
- 2008 UNC Charlotte Beginning Teacher Award nominee
- Finalist for 2010 Robinson High School Teacher of the Year Award
- Recipient of the dedication in Robinson High School's 2010 yearbook
- 2011 Recipient of the Imogene Mathison Mixson Award for Higher Education Study
- Member of Auburn University's chapter of the Phi Kappa Phi Honor Society

Computer Skills

Microsoft Office; SchoolCenter Webpage Creator; NCWise Data Manager; SmartBoard NOTEBOOK Software; Google Documents; Adobe Presenter

Richard Jowers

[redacted]

Objective: To obtain a job as a Health and Physical Education Teacher and /or Coach.

Education: Bachelor of Arts, Education 3.2 GPA
Elizabeth City State University, Elizabeth City, NC 27909
Expected Graduation Date: May 2012

Skills/Trainings: First Aid Certified, CPR Certified, NCI Certified, OSHA Certified, Anger Management Certified, Fire Safety, computer skills, Adobe Photoshop, Adobe Flash, Adobe Dreamweaver, Adobe Creative Systems, Excel, Publisher, Microsoft Digital Image Starter, Amazing Photo Editor, Microsoft Office tools.

Work Experience:

Aug. 2009-Present Rfjowers Photography
Photography & Design Company Owner

Jan. 2011- Sept. 2011 Pride in NC, Elizabeth City, NC 27909
Habilitation Technician

May 2007-July 2007 West Telecorp, Hampton, VA 23669
Customer Service/ Communications

Community Service:
Toys for Tots (2008, 09.10, 11)
Vote or Die (2008, 09)
Relay for Life (2008, 09, 10)
Hampton Triathlon (2008)
Charles R. Drew Blood Drive (2008, 09, 10)
March of dimes (2008, 09, 10, 11)
AAU Junior Olympics (2007)

Activities & Interest
Member of AAPHERED (American Alliance for Physical Education Recreation and Dance
Member of the Lambda Gamma Chapter of Omega Psi Phi Fraternity Inc., (2008- Present)
Basileus (President) Lambda Gamma Chapter (2009- 2011)
Member of the Elizabeth City State University Football Team (2006- 2010)
Member of the National Pan-Hellenic Council (2008- Present)
Active Member of the ECSU NAACP (2008- Present)
AAU Basketball Coach (2008-2009)
2005 Coast Guard Aim program
2008, 2010 Undergraduate Summit
Assistant football Coach Northeastern High (2010) State champion runner ups
Volunteer Assistant Coach ECSU (2010, .2011) 2011 CIAA Champion Runner up

Honors & Awards
Full Athletic Scholarship/ Football
Honor Roll (Fall 06), (Spring 2008, Spring 09, 2011) Chancellors list (Fall 2007)

References: Available upon request

biogen idec FOUNDATION

October 24, 2011

Dr. Bill Harrison
North Carolina State Board of Education
State Board of Education
6302 Mail Service Center
Raleigh, NC 27699-6302

Dear Dr. Harrison:

The Biogen Idec Foundation is pleased to provide this letter of support for the Contemporary Science Center's application for a STEM-focused high school to be located in the Research Triangle Park.

The Biogen Idec Foundation's mission is to improve the quality of people's lives and contribute to the vitality of the communities where Biogen Idec operates, with special emphasis on innovative ways to promote science literacy and encourage young people to consider science careers. We believe the concept behind this school holds tremendous potential to offer globally competitive education to the students it serves directly and beyond.

Based on the belief that engaging, relevant instructional approaches are influential in directing youth to science-oriented careers, the Biogen Idec Foundation is a long-time supporter of programming at the Contemporary Science Center. Our financial support first began in 2004 with a grant for operational support, which has continued each year since. In addition, the Biogen Idec Foundation awarded the CSC $60,000 to support its move into a permanent lab facility at the NC Museum of Life and Science. Most recently, the Biogen Idec Foundation issued a $50,000 challenge grant to support development funding for the school outlined in this charter application.

With a successful programming track record behind the Contemporary Science Center, strong interest from the RTP-area business community and a host of educational partnerships in place, the proposed school is on a path to have a transformative effect on science education in North Carolina.

Best Regards,

Mike McBrierty
Senior Manager, Public Affairs, Biogen Idec
RTP-Area Administrator, Biogen Idec Foundation

Biogen Idec Inc. 5000 Davis Drive P.O. Box 14627 Research Triangle Park, NC 27709-4627 Phone 919 993 1100 Fax 919 941 1115
www.biogenidec.com

UNC
SCHOOL OF EDUCATION

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

OFFICE OF THE DEAN

CAMPUS BOX 3500
PEABODY HALL
CHAPEL HILL, NC 27599-3500
http://soe.unc.edu

November 1, 2011

To whom it may concern:

UNC Chapel Hill's School of Education (SOE) supports the proposed scope of work and, in particular, the opportunity to partner with the Research Triangle High School. Key faculty within the SOE currently provide assistance and advice on research-based practices that are driving the planning and work for this school.

I foresee continued opportunities to partner with Research Triangle High School by way of our partnerships with rural school districts and our pre-service teacher preparation programs. The proposed teacher-residency program is one way the Research Triangle High School can scale-up inquiry-based instructional strategies in science and math by providing a supportive environment using the learning-teams model and virtual support for teacher residents. The SOE's outreach initiatives involve close relationships with school districts that enroll students from low-wealth families – a demographic this school proposes to target for the teacher residencies.

In addition to these partnerships, the SOE collaborates with the College of Arts and Sciences on the UNC-BEST program. UNC-BEST students receive strong content preparation as majors in the science and math as well as internships and practica in schools. These experiences, in conjunction with SOE coursework, qualify them to be licensed to teach in STEM subject areas.

High-quality internship experiences are critical to pre-service teachers' development. The development of the teacher-residency and learning-teams models at Research Triangle High School represent potential internship and practica placements for UNC-BEST students. These placements would facilitate further collaboration that could strengthen the high school's academic programs as well as provide SOE's pre-service students with a teaching and learning community that connects with their education coursework.

We welcome the opportunity to continue our conversations about these and other possible ways the UNC-CH School of Education can be a part of this promising incubator of innovative high school education.

Sincerely,

Bill McDiarmid
Dean & Alumni Distinguished Professor of Education

NORTH CAROLINA SCHOOL
OF SCIENCE AND MATHEMATICS

Melissa Rihm Thibault
Vice Chancellor for Distance Education
and Extended Programs
North Carolina School of Science and Mathematics
1219 Broad Street
Durham, NC 27715

October 31, 2011

To whom it may concern,

As a leader in STEM education with a mission to advance public education in North Carolina, the North Carolina School of Science and Mathematics [NCSSM] supports the planned work of the Research Triangle High School and looks forward to opportunities to work with the school. For example, NCSSM's outreach programs include professional development for teachers and instructional services to rural and low wealth schools, audiences also identified by the Research Triangle High School as priorities. Additionally, NCSSM has been developing digital assets that can be used by teachers for instruction and by students for self-directed learning, and the Research Triangle High School plans to create and share similar content, contributing to build a more comprehensive collection. Finally, the close proximity of the Research Triangle School to NCSSM may facilitate collaborative teaching and learning activities, extending the reach of both schools by building upon existing and planned capacity and resources, particularly in the areas of research and mentorship.

Clearly, the planned work of the Research Triangle High School aligns well with the work of NCSSM, and I believe there is great potential for partnership and collaboration to further both our goals. Therefore, I endorse the planned activity of the Research Triangle High School. If I can be of further assistance please do not hesitate to ask.

Sincerely,

Melissa Rihm Thibault
thibault@ncssm.edu

THE RESEARCH
TRIANGLE PARK

October 21, 2011

Ms. Pamela Blizzard
Executive Director
Contemporary Science Center
Research Triangle Park, NC

Dear Ms. Blizzard:

I am writing to confirm the Research Triangle Foundation's support of the proposal by the Contemporary Science Center to locate a STEM High School in the Research Triangle Park. Over the past 52 years, the Research Triangle Park has been instrumental in helping change North Carolina's economy from dependence on old line manufacturing and agriculture to increasing development of innovation industries. It is important that our high school students gain the skills that will enable them to excel in college in the areas of science, technology, engineering and math as these are the areas where the jobs will be in the future. The Research Triangle Park has continued to attract and keep companies in large part due to the strength of the labor force here in the Research Triangle region. However, we agree with others that our community needs to continue to replenish that labor force and we need to help raise the bar for education throughout North Carolina. The Board of Directors of the Research Triangle Foundation believes that the proposed STEM High School can help to do this. They were especially encouraged that the Contemporary Science Center has collaborated with the North Carolina School of Math and Sciences as you firm up plans for the charter school. We look forward to future reports of the progress made on this front.

To help further this iniative, the Board voted at its meeting on September 1, 2011, to support the proposal to join the Biogen Idec Foundation and provide a one-time grant of $50,000 as a financial contribution for the planning for the new school.

Sincerely,

Elizabeth H. Rooks

Elizabeth H. Rooks
Interim President and CEO

12 Davis Drive ▸ PO Box 12255 ▸ Research Triangle Park NC 27709 USA ▸ www.rtp.org ▸ phone 919.549.8181 ▸ fax 919.549.8246
Research Triangle Foundation of North Carolina — Developer of The Research Triangle Park

CHARTER

Pursuant to G.S. 115C-238.29A et seq. the North Carolina State Board of Education (hereinafter referred to as "SBE") grants this license to **Contemporary Science Center, Inc.** (hereinafter referred to as "the Nonprofit") to operate **Research Triangle High School**, a Public Charter School.

1. Term

1.1 The Charter is effective on July 1, 2012 through June 30, 2022. It shall terminate June 30 of the last year without further notice from or action by the SBE.

1.2 In accordance with 115C-238.29D(d), the Nonprofit will ensure the Public Charter School completes the Five Year Review process which includes reporting on the application's approved goals as well as selecting new goals for the next five years.

1.3 The Nonprofit may apply to renew the Charter pursuant to SBE policies and procedures; however, this agreement, in no way, binds the SBE to renew the Charter for an additional term. The SBE shall make renewal decisions consistent with State law, SBE policies, and the terms of this agreement.

2. Status of Parties to the Charter

2.1 This Charter is not intended to create and shall not be interpreted to create employer-employee, contractor-subcontractor, or principal-agent relationships between or among any party or parties to this Charter. "Parties," for purposes of this paragraph only, include the parties to this Charter as well as the local board of education and the Board of Trustees of any constituent institution of the University of North Carolina. No officers, employees, agents, or subcontractors of the School shall be considered officers, employees, agents or subcontractors of the local board of education, the Board of Trustees of any constituent institution of the University of North Carolina, or the SBE.

2.3 The Nonprofit certifies that all contracts obligating the Nonprofit have been and will be undertaken by the Nonprofit and failure to act strictly as a nonprofit corporation shall be grounds for revocation of the Charter.

3. Application-Binding

3.1 The SBE has reviewed the Application submitted by the Nonprofit and has approved it subject to adherence to all requirements set forth in this Charter and in the Charter School Act. The Application is fully incorporated in this Charter and all representations and conditions contained in the Application are binding on the charter school.

3.2 The Nonprofit shall immediately submit in writing to the Office of Charter Schools, the SBE and the local board of education in which the Public Charter School is located, any proposed substantial changes to the Application or the representations or conditions contained in the Application. The SBE reserves the right to reject any proposed changes to the Application.

3.3 No material revision to this Charter shall be valid without the approval of the governing board of the Nonprofit and final approval by the SBE.

4. Charter School Governing Board

4.1 The Public Charter School shall at all times be operated by the board of directors of the non-profit corporation in accordance with G.S. 115C-238.29A et seq. and all other applicable laws and regulations.

4.2 The Nonprofit affirms, as a condition of this Charter, that the governing board members receive no compensation other than reimbursement of reasonable expenses incurred while fulfilling duties as a member of the board.

4.3 No member of the governing board shall be an employee of a company that provides substantial services to the charter school.

4.4 The members of the Nonprofit board of directors affirm that they will adhere to a duly adopted conflict of interest policy, including provisions related to nepotism and consistent with the provisions of this section.

4.5 The Nonprofit shall have ultimate responsibility for employment, management, dismissal and discipline of its employees. In no event shall the governing board delegate or assign its responsibility for fulfilling terms of this charter.

a. The Nonprofit shall not enter into or terminate an agreement for comprehensive management services without the prior, explicit approval of the SBE.
b. The Nonprofit shall comply with all SBE requests regarding the management agreement that are reasonably related to compliance with all provisions of this charter agreement and the charter school statute.

5. Compliance With Other Laws

5.1 The Nonprofit shall ensure that the Public Charter School complies with all applicable federal laws and regulations, including, but not limited to, such laws and regulations governing employment, environment, disabilities, civil rights, children with special needs, transportation, and student records.

5.2 The Nonprofit shall ensure that the Public Charter School complies with all applicable health and safety laws and regulations, whether federal, state, or local.

5.3 Neither the SBE nor the local board of education assumes the duty to oversee the operations of the Public Charter School except as may otherwise be provided by law or separate contract.

5.4 Neither the SBE nor the local board is required to monitor the Public Charter School for compliance with applicable laws and regulations.

6. Tax-Exempt Status

The Nonprofit understands that, pursuant to G.S. 115C-238.29E(b), it is obligated to obtain federal tax-exempt status no later than twenty-four months from the date the SBE gives final approval of its Application. The loss of federal tax-exempt shall result in the revocation of the charter.

7. Enrollment

7.1 Admission and enrollment of students shall be as prescribed by the Charter School Act. Failure to adhere to the lottery requirements set forth in G.S. 115C-238.29F(g) is grounds for termination of this Charter.

7.2 Student recruitment and enrollment decisions shall be made in a nondiscriminatory manner and without regard to race, color, creed, national origin, sex, marital status, religion, ancestry, disability or need for special education services.

7.3 The Nonprofit shall ensure that the Public Charter School reports (electronically if the School has the means to report through Student Information Management System or other student data information system as designated by the SBE) the names, addresses, names of the legal custodian of the students, addresses of the legal custodian of the students, and Student ID number of all students enrolled, as required by the SBE. On September 1 of each year or following the 20th day Average Daily Membership (hereinafter referred to as "ADM") headcount, whichever is later, the Public Charter School will provide to the local boards of education from which it is entitled to receive local funds the above information with regard to any students from those districts enrolled in the School. This information will be provided electronically in a Uniform Education Reporting System approved software or system. When a student withdraws, the Public Charter School shall promptly notify the local board of education responsible for the attendance area in which the student resides so that the local board may fulfill its legal obligation to verify the student's compliance with compulsory attendance laws.

7.4 Enrollment numbers in the application are projections, or estimates, and do not bind the State to fund the Public Charter School at a particular level.

a. For the first two years of the initial charter the State will fund the school up to the maximum projected enrollment for each of those years as set forth in the application. However, in subsequent years, the School may increase its enrollment only as permitted by G.S. 115C-238.29D(d), that is, an increase of 20% per year based on the previous year's enrollment.

b. Any increase above 20% must be submitted to the Office of Charter Schools and approved by the State Board of Education in accordance with G.S. 115C-238.29D(d).

8. Financial and Governance Warnings

This Charter incorporates by reference, and the Nonprofit is subject to, State Board Policy, Policy for Schools on Financial and Governance Noncompliance, and any subsequent amendments to such Policy.

9. Children with Special Needs

9.1 As prescribed by the SBE and in accordance with state and federal laws, the Nonprofit will ensure that the Public Charter School provides to the SBE the total number of children with special needs, identified in accordance with state and federal laws, enrolled in the Public Charter School.

9.2 The Nonprofit accepts and understands that for purposes of federal and state law, it is obligated to provide free and appropriate education and related services to children with special needs.

9.3 The Public Charter School shall be designated a local education agency (LEA) solely for purposes of meeting special education requirements pursuant to the Individuals with Disabilities Education Act (IDEA).

9.4 The Public Charter School shall be responsible for meeting the needs of English language learners in compliance with State and Federal law.

10. Reports

The Nonprofit shall ensure the Public Charter School submits such reports as required by the SBE. Failure to submit such reports may be grounds for revocation of the Charter.

11. Notifications

11.1 The Nonprofit shall notify the SBE immediately of any conditions that it knows are likely to cause it to violate the terms of this Charter or applicable law.

11.2 The Nonprofit shall notify the SBE immediately of any circumstance requiring the closure of the Public Charter School, including but not limited to a natural disaster, such as an earthquake, storm, flood or other weather-related event, other extraordinary emergency, or destruction of or damage to the school facility.

11.3 The Nonprofit shall immediately notify the SBE of the arrest or charge of any members of the governing board or of a Public Charter School employee for a crime punishable as a felony, any crime related to the misappropriation of funds or theft, any crime or misdemeanor constituting an act against a minor child or student, or of the investigation of a member of the governing board or of any Public Charter School employee for child abuse.

11.4 The Nonprofit shall notify the SBE immediately of any change in its corporate status with the North Carolina Secretary of State's Office.

11.5 The Nonprofit shall notify the SBE immediately of a default on any obligation, which shall include debts that are past due by sixty (60) days or more.

11.6 The Nonprofit shall notify the SBE immediately if, at any time, student enrollment decreases by twenty percent (20%) or more compared to the most recent pupil count submitted to the SBE and/or DPI.

11.7 Failure by the Public Charter School to provide the above-stated notifications may be deemed a violation of this Charter and may be grounds for revocation.

12. Records

12.1 Subject to state and federal laws, the local board of education, the SBE, its agents, and the State Auditor shall have the right to examine and copy all records, reports, documents, and files relating to any activity, program, or student of the Public Charter School.

12.2 The Nonprofit is subject to the Public Records Law, Chapter 132 of the General Statutes. This provision is effective upon the SBE's approval of the Charter Application.

12.3 The Public Charter School is subject to all the provisions of Article 29 of Chapter 115C, entitled "Protective Provisions and Maintenance of Student Records."

12.4 The Nonprofit shall ensure compliance with the Family Educational Right to Privacy Act 42U.S.C. §1232g.

13. Insurance and Bonding

13.1 The Nonprofit shall obtain and maintain insurance at a minimum in the following amounts:

a. Errors and omissions: one million dollars ($1,000,000) per claim;
b. General liability: one million dollars ($1,000,000) per occurrence;
c. Boiler and machinery: the replacement cost of the building;
d. Real and personal property: the appraised value of the building and contents;
e. Fidelity bonds: no less than two hundred fifty thousand dollars ($250,000) to cover employee dishonesty;
f. Automobile liability: one million dollars ($1,000,000) per occurrence; and
g. Workers' compensation: as specified by Chapter 97 of the General Statutes.

13.2 These provisions shall not preclude the Nonprofit from obtaining liability insurance coverage in addition to or in excess of the requirements stated in this section.

14. Health, Safety, Welfare

14.1 The Nonprofit shall ensure that the Public Charter School adheres to all applicable federal, state, and local health and safety laws and regulations.

14.2 The Nonprofit shall grant access to local health and fire department officials for inspection of premises or operations of the charter school for purposes of ensuring the health, safety and welfare of students and employees.

15. Facilities

15.1 Prior to commencing operation, the Nonprofit shall provide to the SBE a description of the facility, the financing for the facility and evidence from local government inspection authorities that the School's facilities are currently safe (*e.g.*, Certificate of Occupancy for Educational Use).

15.2 Any change in location requires immediate notification by the Nonprofit to the SBE, and the Public Charter School must comply with the following conditions:

a. Notification to the SBE;
b. Submission of a valid Certificate of Occupancy or Temporary Certificate of Occupancy for the new Facilities prior to the first day of occupancy.

15.3 Relocation into a different county and/or LEA shall constitute a material revision to this Charter and requires approval of the SBE.

16. Licensed Employees

16.1 All employees who hold professional valid licenses issued by the SBE are subject to the rules pertaining to licensed professionals and their licenses may be revoked based on any of the grounds listed in 16 N.C.A.C. 6C. 0312. In addition, licensed administrators are subject to the mandatory reporting requirement if a licensed employee engages in physical or sexual abuse of a child.

16.2 Prior to each academic year, and as required by the SBE, the Nonprofit will ensure the Public Charter School reports the total number of teachers and the total number of teachers who hold valid licenses who are employed to teach at the Public Charter School. Failure to employ at least the number of licensed teachers required by law to teach in the charter school shall be grounds for revocation of the Charter.

16.3 The Nonprofit understands and agrees that it shall not employ, or accept voluntary services from, any individual whose certificate or license has been suspended or revoked by the SBE or any other licensing board or agency on the grounds of unethical or immoral behavior, including improper sexual or physical conduct with children or students. Violation of this provision is grounds for revocation of the Charter.

16.4 In the case of a Nonprofit employee who is on leave from employment with the local board pursuant to G.S. 115C-238.29F(e) or its successor statute, the Nonprofit will notify the local board if such employee is suspended, terminated, asked to resign, or otherwise subjected to disciplinary action because of poor performance or misconduct. The Nonprofit shall cooperate with the local board and shall provide any information requested concerning such employees.

17. Fees

As prescribed by law, the Nonprofit shall not charge tuition or fees, except that a Public Charter School may charge any fees that are charged by the local school administrative unit in which the charter school is located.

18. Transportation

The Nonprofit shall ensure the Public Charter School provides transportation for students as prescribed by law and the approved charter application.

19. Indemnity

19.1 The Nonprofit agrees to indemnify and hold harmless the SBE, DPI, the constituent institutions of the University of North Carolina, and local boards of education, their officers, agents, employees, successors and assigns from all claims, damages, losses and expenses, including attorney's fees, arising out of or resulting from any action of the School caused by any intentional or negligent act or omission of the School, its officers, agents, employees, and contractors.

19.2 The Nonprofit acknowledges that it is without authority to extend the faith and credit of the SBE to any third party. The Nonprofit shall clearly indicate to vendors and other entities and individuals that the obligations of the Nonprofit under agreement or contract are solely the responsibility of the Nonprofit and are not the responsibility of the SBE.

19.3 This Charter is not an employment contract. No officer, employee, agent, or subcontractor of the Nonprofit is an officer, employee, or agent of the SBE.

20. Student Discipline

20.1 The Nonprofit agrees to ensure the Public Charter School shall comply with Article 27 of Chapter 115C of the General Statutes, except as otherwise provided by law or as may be provided by contract with the local board of education.

20.2 The Public Charter School shall comply with all applicable federal and state laws and regulations governing discipline of children with disabilities, including compliance with 20 U.S.C. Sec. 1400 et seq. and Section 504 of the Rehabilitation Act of 1973, 29 U.S.C. Sec. 706(8).

20.3 The Public Charter School shall comply with state and federal due process requirements both in notifying students of conduct for which they may be suspended or expelled and in providing notice and hearing opportunities to students being recommended for exclusion. If the Public Charter School suspends a student with special needs, it shall continue to provide to the student all continuing education services to the extent mandated by federal and state laws and regulations.

20.4 In the event the school suspends or expels a student, the Public Charter School shall promptly notify local School officials in the School district to which the student would otherwise be assigned. Such notification shall include the student's name, special education status, length of suspension/expulsion and the circumstances giving rise to the suspension or expulsion. At the beginning of each School year, the Nonprofit shall ensure that all parents/legal guardians are notified that: "[T]he local board may refuse to admit any student who is suspended or expelled from a School due to actions that would lead to suspension or expulsion from a public School under G.S. 115C-391 until the period of suspension or expulsion has expired." (G.S. 115C-238.29B(b)(11)).

21. Instruction

As prescribed by law, the Nonprofit shall ensure the Public Charter School provides the minimum days of instruction as required by statute.

22. Criminal Background Checks

22.1 The Nonprofit agrees, at its own cost, to conduct thorough background checks on all of its employees. The SBE will conduct criminal history checks as authorized by statute of School personnel responsible for the fiscal affairs of the Public Charter School. In addition, the SBE may conduct criminal history checks of any Public Charter School personnel or director when the SBE deems it necessary to protect the financial integrity of the Nonprofit or when necessary to protect the health and safety of students or employees.

22.2 Refusal by any individual to submit to a fingerprint check is grounds for termination of employment and/or revocation of the Charter.

22.3 The SBE may consider the refusal of an individual to submit to a fingerprint check in determining whether:

a. to grant final approval of the Charter application;
b. to recommend to the Public Charter School that the individual be denied employment; and/or
c. to revoke the Charter of the Public Charter School.

23. Open Meetings

The Nonprofit agrees to be subject to the Open Meetings law (Article 33C of Chapter 143 of the General Statutes). This provision is effective upon the SBE's final approval of the charter application.

24. Assignment

Assignment of the Public Charter School to another entity is deemed a material revision to the Charter and must have prior written approval of the SBE.

25. Adequate Performance

The Nonprofit shall comply with 115C-238.29G(a1) and Board policy TCS-U-010 which defines adequate criteria for Public Charter School performance and consequences for failing to meet the statutory requirements.

26. Termination of Charter

26.1 The SBE may terminate this Charter on any of the following grounds:

a. Failure to meet the requirements for student performance;
b. Failure to meet generally accepted standards of fiscal management;
c. Violation of law;
d. Material violation of any of the conditions, standards, or procedures set forth in the Charter;
e. Two-thirds of the faculty and instructional support personnel at the Public Charter School request termination or nonrenewal; or
f. Other good cause warranting nonrenewal or termination.

26.2 The following procedures will apply to the termination proceedings:

a. When the NC Department of Public Instruction shall have sufficient information to initiate termination of a Charter, it shall give the Nonprofit written notice of its intention to recommend revocation of the Charter. The notice will be sent by certified mail, return receipt requested, and shall state in reasonable detail the grounds for the recommendation.
b. If information available to the NC Department of Public Instruction indicates that the Public Charter School's current operation poses an immediate threat to the education, health, safety, or welfare of the Public Charter School's students or employees or the public, the SBE may take appropriate protective action pending a final decision on the termination of the Charter.
c. If the SBE approves the recommendation of the NC Department of Public Instruction, notice will again be sent as specified in Paragraph (b) (1).

26.3 If the Nonprofit objects to the termination of the Charter, it must, within ten days following the date on which notice of the SBE's action was mailed, deliver to the Office of Charter Schools a written request for a review by the SBE. If the Nonprofit fails to deliver a timely request for review, the Charter shall terminate on the eleventh day after the date the notice was mailed. If a timely request for a review is made by the Nonprofit, the Office of Charter Schools will transmit the request to the appropriate Review Panel appointed by the Chair of the SBE. The Review Panel may review the matter with or without a formal hearing. If the Review Panel elects to conduct a hearing, the hearing shall be held within 30 days of receipt of the written request, unless otherwise agreed to by the parties. At the conclusion of its review, the Review Panel shall submit a written recommendation to the SBE. Unless the SBE and the Nonprofit otherwise agree, the SBE shall make a final decision at its next regularly scheduled meeting.

26.4 In the event that the Nonprofit is required to cease operation for any reason, including by not limited to non-renewal, revocation, or voluntary surrender of the Charter, the Nonprofit shall comply with the SBE's closure requirements.

27. Charter Amendment

27.1 The Nonprofit shall submit any proposed material revision of the charter to the SBE in accordance with guidance provided by the Office of Charter Schools. Changes that constitute a material revision include, but are not limited to, the following:

a) Enrollment growth beyond 20% or grade expansion not approved in the charter;
b) Relocation;
c) Transferring the charter to another non-profit entity;
d) Altering the mission or targeted student population;
e) Employing or terminating a management company;
f) Changing the application respecting the National School Lunch program; and
g) Changing the application with respect to student transportation.

27.2 The following proposed amendments to a charter may be approved by Department staff without the necessity of Board action; however, the charter school must seek approval prior to implementation of the change. Further, the Board must be notified by the Department of any approved amendments in the following areas:

a) Bylaws;
b) The name of the charter school;
c) The Articles of Incorporation;
d) Class sizes as stated in the application;
e) Length of school day and/or academic year; and
f) Curriculum changes.

27.3 Any potential changes not contained in 27.2 above must be reviewed and approved by the State Board of Education. Notwithstanding the foregoing, the Department may carry any proposed amendment to the Board for its review.

28. Agreements with Local Boards of Education

This Charter shall not preclude the Nonprofit from entering into any agreements with the local board of education; provided, no such agreements shall supersede or override any provision of this Charter.

29. Oversight and Intervention

29.1 The SBE will, at its discretion, conduct announced or unannounced site visits at the Public Charter School consistent with its oversight authority.

29.2 The SBE and DPI are, in no event, responsible for any financial support other than the ADM funding as provided by law.

30. Notice

Any notice the Public Charter School is required or permitted to submit under this Charter shall be delivered to:

Director, Office of Charter Schools
Department of Public Instruction
6303 Mail Service Center
Raleigh, NC 27699-6303

All faxes sent by the School shall be followed by hard copies postmarked within the next business day of the fax transmittal.

31. Severability

If any provision of this Charter is determined to be unenforceable or invalid for any reason, the remainder of this Charter shall remain in effect, unless the Charter is revoked or relinquished.

32. Non-Endorsement

The Public Charter School acknowledges that the granting of a Charter in no way represents or implies endorsement by the SBE of any method of instruction, philosophy, practices, curriculum, or pedagogy used by the School or its agents; nor does the granting of this Charter constitute a guarantee by the SBE of the success of the Public Charter School in providing a learning environment that will improve student achievement.

33. Legislative Action

This Charter and any amendments to it and renewals of it are subject to applicable laws enacted by the General Assembly and shall be deemed amended to reflect applicable changes to those laws. Upon repeal of the statutes authorizing this Charter, this Charter is null and void.

FOR THE SCHOOL: _____

(School Name)

This 5 day of June 2012

Gerald R. McCrain

(Print Name of Board Chair/ President)

Gerald R McCrain

(Signature of Board Chair/President)

BRENDA J. COX NOTARY PUBLIC LAKE COUNTY, NC

(Official Seal)

Sworn to and subscribed before me this 5th day of June, 2012.

Brenda J. Cox

Notary Public

My commission expires 9-5, 2016.

FOR THE STATE BOARD OF EDUCATION:

This _____ day of _____ 2012

_____

(State Superintendent)

_____

(Signature of State Superintendent)

Sworn to and subscribed before me this _____ day of _____, 2012.

(Official Seal)

_____

Notary Public

My commission expires_____, 20___.

2012

Budget Narrative File(s)

*** Mandatory Budget Narrative Filename:** RTHSBudgetNarrative.pdf

Add Mandatory Budget Narrative | Delete Mandatory Budget Narrative | View Mandatory Budget Narrative

To add more Budget Narrative attachments, please use the attachment buttons below.

Add Optional Budget Narrative | Delete Optional Budget Narrative | View Optional Budget Narrative

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Research Triangle High School Budget Narrative

Planning, program design, and implementation CFDA No. 84.282B

I. Explanation of US Department of Education Budget Request

RTHS is launching a new school model based on blending digital materials ('Playlists' of Flipped lessons, animations, games, simulations and other online lessons like Khan Academy) with hands-on experiences (labs, Field Studies, tutors, lectures, internships) from Research Triangle companies. This model will require a new way of teaching, and it is RTHS' mission to share this new model with other teachers and schools as our school matures. Therefore, RTHS teachers will be supported by two key staff positions in this initial implementation. First, the 21st century Media Specialist (line item a) will guide teachers to find and use digital resources and tools, instruct them in how to best use new and emerging digital tools, and support them in that implementation. This position will be half time for the first three years of RTHS. Second, the Professional Development (PD) Coordinator (line item c) will come on board in year two, expanding upon the work of the 21st century Media Specialist. He or she will expand the Learning Teams focus of the faculty, formalizing the Teams, coordinating their PD meetings and their scope and sequence of learning, tracking and coordinating the measurement of progress for the faculty and students in meeting the goals of the digital program, and beginning the outward reach of the program to include in-service training of local University teaching students. By year three, the PD Coordinator will begin designing the Residency program, planning for inclusion of Residents from rural or inner city urban teachers into RTHS Learning Teams and the outward focus of RTHS. These positions are outside the normal

requirements of a state-funded school, critical to the innovations of RTHS, and therefore are especially critical for non-SEA funding.

In addition, in each of the first three years, new faculty (line item b) will be working a month early on developing these digital tools and putting them into practice, and working additional hours over the course of the year on implementation of these curricula. Founding faculty in each of the first three years are expected to expend considerable additional start-up time – two months – in development of new methods and curriculum. This request is to support the investment of time on faculty's part for planning and initial implementation of this new school model. Note that in Year One, **all** faculty are new and so this line item is large for the first year. In Years Two and Three, only incremental new hirees' salaries are calculated into this support.

Fringe benefits at the school are calculated at 21% and are made up of the NC State Health Plan, the NC 457 Supplemental Retirement Plan, and optional vision, dental and disability plans, plus required state and federal tax contributions.

"Equipment" expense requests at the school are in three categories, again to support the school's model of digital-plus-hands-on learning. The school is promoting the program as "BYOD", i.e. Bring Your Own Device, relying on young people's reliance on and expertise with smartphones and tablets. RTHS expects that for families who can afford this, this will be a viable digital device strategy. At the same time, we are well aware that not all families, by any means, are able to meet this plan. Therefore, the Equipment line

item budget includes considerable support for RTHS's digital model.

First (line item d) are hardware resources for students and teachers. This category includes small mobile devices (used Kindles or iPads) which will be provided to students who are not able to come to the school with their own (for primarily Free & Reduced Lunch-eligible students), laptops and printers for the teachers, home laptops for FRL students, and hardware for the school's strong wireless network and internet access. Local donations from Lenovo and Cisco are supporting this line item, which is very costly in the start-up years of the school. Second (line item e) will be digital resources - purchases of software apps and any small electronics needed to support digital learning (such as Flip-like video cameras), and an annual subscription to the school's Learning Management System (MoodleRooms, $10,000/yr). Third (line item f) will be marketing and recruitment costs to reach students across the entire Triangle region, primarily through late winter radio ads and some printed materials. Because RTHS reaches out to all 13 counties of the RTRP region, it has proven important to use radio in order to inform the community widely, and to reach across very diverse socioeconomic and racial lines. Two flights of radio ads will consume this budget item in the winter.

US Department of Ed Funds	Year One	Year Two	Year Three
a) 21st c Media Specialist - New curriculum development; .5 FTE	17500	17763	18029
b) All New Teachers - New school planning & development; weekly Professional Development; .16 FTE	60522	21327	28920
c) PD Coordinator for new teaching methods; .5 FTE, then 1.0 FTE		19500	39585
1. Total Personnel	78,022	58,590	82,928
2. Fringe Benefits – 21%	16,583	12,453	17,626
3. Travel to DC for grant	1,600	1,600	1,600
d) IT Purchases – Mobile devices for Free & Reduced Lunch-eligible students, and classrooms, and teachers:	50000	75000	50000
e) Digital resources & Moodle/LMS	15000	22500	25000
f) Marketing & Recruitment	5000	5000	4000
4. Total Equipment	70,000	102,500	79,000
5. Supplies			
6. Contractual			
7. Construction			
8. Other			
9. Total Direct Costs (lines 1-8)	166206	175143	181155
11. Training Stipends			
12. Total Costs	166206	175143	181155

II. Overview of Financial Projection Assumptions in 5-Year Pro Forma

Notes:

1. Revenue: Funding increases from state and local sources are based on past history:

Funding History: Per ADM						
Year	NC State	Increase	Durham	Increase	Wake	Increase
1999-00	3,543		-		1,525	
2000-01	3,727	5.2%	2,185		1,613	5.8%
2001-02	3,739	0.3%	2,237	2.4%	1,771	9.8%
2002-03	3,694	-1.2%	2,196	-1.8%	1,828	3.2%
2003-04	3,767	2.0%	2,255	2.7%	1,942	6.2%
2004-05	3,904	3.6%	2,350	4.2%	1,981	2.0%
2005-06	4,103	5.1%	2,540	8.1%	2,111	6.6%
2006-07	4,339	5.8%	2,629	3.5%	2,075	-1.7%
2007-08	4,532	4.4%	2,733	4.0%	2,163	4.2%
2008-09	4,593	1.3%	2,899	6.1%	2,149	-0.6%
2009-10	4,175	-9.1%	2,853	-1.6%	2,150	0.0%
2010-11	4,134	-1.0%	3,050	6.9%	2,098	-2.4%
2011-12	4,311	4.3%	3,045	-0.2%	2,040	-2.8%
12 year average	**NC State**	**1.7%**	**Durham**	**3.1%**	**Wake**	**2.5%**

Revenue increase assumptions:		Used:
State	Year 2 -5	Increase by 1.7%
County	Year 2 -5	Increase by 1.5%

2. Expenses: Salary increases are based upon state history over past many years. We used 1.5% as our average planned future increases, combining past history with very-near history of 0%:

NC State Salary History		
Year	**Step 0**	**Increase**
1996-97	21,330	
1997-98	22,150	3.8%
1998-99	23,100	4.3%
1999-00	24,050	4.1%
2000-01	25,000	4.0%
2001-02		
2002-03		
2003-04		2.0%
2004-05		
2005-06		
2006-07	28,510	5.0%
2007-08	29,750	4.3%
2008-09	30,430	2.3%
2009-10	30,430	0.0%
2010-11	30,430	0.0%
2011-12	30,430	0.0%
Average Increase		**2.7%**

Our projections:
Years 2 to 5 include 1.5% increase.

3. Other assumptions included in RTHS pro formas include:

3.1. Revenue Assumptions

State: General Purpose - used $4,310 which was actual funding per ADM for 2011-12
State: Special Education - used $$3,649 which was actual funding per ADM for 2011-12

ADM = Average Daily Membership = Headcount of students enrolled in a school

3.2. Local

Used actual ADM funding for 2011-12 for the following counties. The % is the estimated
headcount % from each county. The weighted average ADM based on this information is $2,543.

County	**Per ADM**	**%**
Wake	2040	50
Durham	3045	46
Chapel Hill	3102	2
Chatham	3000	2

3.3. Salary Expenses

Salaries

Used $45,000 for average teacher salary, as we are hiring experienced, higher-degreed faculty.

The 2011-12 salary for a 10th year Durham County teacher with a BA degree is $41,254.
The 2011-12 salary for a 8th year Durham County teacher with an MA degree is $42,120.

III. Non-Federal Funds – Additional explanation of expenses:

Classroom - projectors, pc's, boards, cameras	50,000	75,000	50,000	75,000	75,000
Teacher materials & supplies	15,000	22,500	25,000	50,000	50,000
Classroom Books	20,000	5,000	5,000	5,000	5,000
Ofc equip - copiers, printers, materials	10,000	10,000	15,000	20,000	20,000
Telecom - phones	5,000	6,500	7,500	9,000	9,000
4. Equipment	**100,000**	**119,000**	**102,500**	**159,000**	**159,000**
5. Office Supplies; Coaches stipends, refs, rentals; Graduation **5. Supplies**	28,560	39,705	51,192	69,140	
6. Acctg, Legal & Insurance; Transp & Food **6. Contractual**	54,830	86,183	105,608	138,174	1
8. Lease payments; College counseling department **8. Other**	246,875	475,917	580,500	637,920	6

IV. Additional Information

Enrollment –

Enrollment projections were submitted in our charter application to the State Board of Education and are at this point, as our charter has been approved, a contract between the State and the School. The State of NC now allots funds to the school based upon this contract. RTHS held its open enrollment period from Feb. 4th through March 15th and had 212 applicants for 160 9th grade spots. We continue to receive late applicants, who are added to our wait list of students. Year two and beyond we will admit 105 new 9th graders. We are estimating attrition.

Projections are:

5 Year Budget		***2012-13***	***2013-14***	***2014-15***	***2015-16***	***2016-17***
	ADM	160	250	330	420	420

Resources and plans for scalability:

The school administrative staff has been planned especially for the needs of scaling this school model to other schools, and/or for replicating the model. The position of Alliances & Partnerships Leader will be directing this externally focused work, ensuring sustained focus on digital media as a force within the school through partnership with the NC School of Science & Math and the NCSU Friday Institute, and then reaching out to statewide districts and STEM schools to share this work. The A&P Leader will drive the outward expansion of the school model. The 21st century media position will be a key supporter of this scaling, building first expertise within the school's teaching faculty and then ensuring the open sourced sharing of RTHS work on emerging sites like the school's

own, NCSSM and the state's LOR – and beyond. The Professional Development Coordinator will launch the Learning Teams model inside the school, quickly expanding to include local new-teacher candidates during their in-service training, and then become the program manager for the Residency program, which will invite rural teachers to come teach side by side with our faculty and take home new techniques and understanding of how to use the open source digital libraries at their disposal. Lastly, the school's IT support staff will be ensuring success at all of this work and ensuring cooperation with partners and their websites, along with bringing in outside software development expertise for key assessment and measurement objectives.

Opportunities to scale our model are strongly rooted in charter schools' 'scrappy' approach to education. Because of both our Contemporary Science Center (CSC) background coming from a prior charter school (Raleigh Charter High School) and the CSC itself, a small non-profit, we are accustomed to accomplishing much with little resources, outstanding hirees, and informal community partners. Over the same time period, the state of NC education system has been forced to adapt some of the same modus operandi because of the recessionary impact on education funding. So our opportunities are to develop strong models within the school, with the resources we have and will attract, and then share those results through open source access and communication with existing, stronger funded partners like the NC School of Science & Math (NCSSM), the Friday Institute, and other STEM efforts in the state with whom we have close relationships because of the CSC's 8-year program.

All of these 'friends' – the NCSSM, Friday Institute, and other STEM programs – are indeed statewide, and have national relationships and on-going outreach programs themselves. The CSC itself has also been a statewide program for its past 8 years. We intend to piggyback on those relationships for communication about our model, and 'get the word out' about opportunities for other LEAs within NC and in other states to look closely at what we do. NC has also invested considerable resources over many years, and new RttT money recently, in extensive broadband access for every school in every corner of the state, removing that barrier to promoting our digital model. This outreach work will be a fundamental focus at RTHS.

At the same time, the biggest challenge we foresee in scaling within NC is what we have experienced locally – a fear amongst local LEAs against the flexibility that charters have to create successful innovations. We find greater openness to our work outside the Triangle area. Rural districts are so under-resourced that they will seize opportunities that can catapult their kids over that resource gap. The Friday Institute works in this rural access arena, as has the CSC. We fully expect to see more adoption of our work in rural areas of the state than in nearby urban. Lastly, taking a cue from High Tech High in San Diego, we expect to see the greatest interest, visitors and workshop attendees, for example, from schools that wish to scale our work *outside* NC. One of the founders at High Tech High advised us that this was their experience, and we are already seeing that essential truth being played out in the local opposition to our work coupled with the strong national interest from corporate partners with worldwide locations. Ironically, we

expect much financial support for our work to come from national corporations, for scaling nationally as much as locally.

Survey on Ensuring Equal Opportunity For Applicants

OMB No. 1890-0014 Exp. 2/28/2009

Purpose:

The Federal government is committed to ensuring that all qualified applicants, small or large, non-religious or faith-based, have an equal opportunity to compete for Federal funding. In order for us to better understand the population of applicants for Federal funds, we are asking nonprofit private organizations (not including private universities) to fill out this survey.

Upon receipt, the survey will be separated from the application. Information provided on the survey will not be considered in any way in making funding decisions and will not be included in the Federal grants database. While your help in this data collection process is greatly appreciated, completion of this survey is voluntary.

Instructions for Submitting the Survey

If you are applying using a hard copy application, please place the completed survey in an envelope labeled "Applicant Survey." Seal the envelope and include it along with your application package. If you are applying electronically, please submit this survey along with your application.

Applicant's (Organization) Name: CONTEMPORARY SCIENCE CENTER

Applicant's DUNS Name: 0409672010000

Federal Program: Office of Innovation and Improvement (OII): Charter Schools Program (CSP): CSP Gran

CFDA Number: 84.282

1. Has the applicant ever received a grant or contract from the Federal government?

   ☐ **Yes** ☒ **No**

2. Is the applicant a faith-based organization?

   ☐ **Yes** ☒ **No**

3. Is the applicant a secular organization?

   ☒ **Yes** ☐ **No**

4. Does the applicant have 501(c)(3) status?

   ☒ **Yes** ☐ **No**

5. Is the applicant a local affiliate of a national organization?

   ☐ **Yes** ☒ **No**

6. How many full-time equivalent employees does the applicant have? (Check only one box).

   ☐ **3 or Fewer** ☐ **15-50**

   ☐ **4-5** ☐ **51-100**

   ☒ **6-14** ☐ **over 100**

7. What is the size of the applicant's annual budget? (Check only one box.)

   ☐ **Less Than $150,000**

   ☐ **$150,000 - $299,999**

   ☐ **$300,000 - $499,999**

   ☐ **$500,000 - $999,999**

   ☒ **$1,000,000 - $4,999,999**

   ☐ **$5,000,000 or more**

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

Survey Instructions on Ensuring Equal Opportunity for Applicants

OMB No. 1890-0014 Exp. 2/28/2009

Provide the applicant's (organization) name and DUNS number and the grant name and CFDA number.

1. Self-explanatory.

2. Self-identify.

3. Self-identify.

4. 501(c)(3) status is a legal designation provided on application to the Internal Revenue Service by eligible organizations. Some grant programs may require nonprofit applicants to have 501(c)(3) status. Other grant programs do not.

5. Self-explanatory.

6. For example, two part-time employees who each work half-time equal one full-time equivalent employee. If the applicant is a local affiliate of a national organization, the responses to survey questions 2 and 3 should reflect the staff and budget size of the local affiliate.

7. Annual budget means the amount of money your organization spends each year on all of its activities.

Paperwork Burden Statement

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. The valid OMB control number for this information collection is **1890-0014.** The time required to complete this information collection is estimated to average five (5) minutes per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection.

If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: The Agency Contact listed in this grant application package.

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00

U.S. DEPARTMENT OF EDUCATION
BUDGET INFORMATION
NON-CONSTRUCTION PROGRAMS

OMB Number: 1894-0008
Expiration Date: 02/28/2011

Name of Institution/Organization

CONTEMPORARY SCIENCE CENTER

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

SECTION A - BUDGET SUMMARY
U.S. DEPARTMENT OF EDUCATION FUNDS

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Total (f)
1. Personnel	78,022.00	58,590.00	82,928.00			219,540.00
2. Fringe Benefits	16,583.00	12,453.00	17,626.00			46,662.00
3. Travel	1,600.00	1,600.00	1,600.00			4,800.00
4. Equipment	70,000.00	102,500.00	79,000.00			251,500.00
5. Supplies						
6. Contractual						
7. Construction						
8. Other						
9. Total Direct Costs (lines 1-8)	166,205.00	175,143.00	181,154.00			522,502.00
10. Indirect Costs*						
11. Training Stipends						
12. Total Costs (lines 9-11)	166,205.00	175,143.00	181,154.00			522,502.00

Indirect Cost Information *(To Be Completed by Your Business Office):

If you are requesting reimbursement for indirect costs on line 10, please answer the following questions:

(1) Do you have an Indirect Cost Rate Agreement approved by the Federal government? ☐ Yes ☐ No

(2) If yes, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement: From: ____ To: ____ (mm/dd/yyyy)

Approving Federal agency: ☐ ED ☐ Other (please specify): ____

The Indirect Cost Rate is ____ %.

(3) For Restricted Rate Programs (check one) -- Are you using a restricted indirect cost rate that:

☐ Is included in your approved Indirect Cost Rate Agreement? or, ☐ Complies with 34 CFR 76.564(c)(2)? The Restricted Indirect Cost Rate is ____ %.

Name of Institution/Organization	Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.	
CONTEMPORARY SCIENCE CENTER		

[redacted]

SECTION C - BUDGET NARRATIVE (see instructions)

ED Form No. 524

Tracking Number:GRANT11152396 Funding Opportunity Number:ED-GRANTS-041312-001 Received Date:2012-06-06T11:49:10-04:00