

Release: **MEDIA ADVISORY**  
Contact: April White  
919.425.4167 (o)  
919.259.9152 (on site)

Date: April 17, 2009  
George Pinckney  
919.425.4169 (o)  
919.381.7494 (on site)

***ATTENTION ASSIGNMENT EDITORS, NEWS DIRECTORS, REPORTERS, WEB BLOGGERS:  
HUNDREDS OF SCIENCE EDUCATORS TO JOIN NATIONAL EXPERTS, WORK TO BRING  
STEM BEST PRACTICES TO NORTH CAROLINA***

Nearly half of North Carolina eighth graders are listed as below basic in science according to the *National Assessment of Educational Progress* (NAEP). To exacerbate this problem, North Carolina teachers in grades four through six, on average, spend approximately two hours per week teaching science, which is below the national average.

In an effort to address these pressing issues and others, the James B. Hunt Institute for Educational Leadership and Policy and the N.C. Science, Mathematics, and Technology Education Center (SMT) are co-hosting the second *North Carolina Science Summit*. The goal is to help districts develop and implement systemic approaches to reform science, technology, engineering, and mathematics (STEM) education. Program support is being provided by the International Center for Leadership in Education (ICLE).

A comprehensive *Science Summit* agenda is attached. On-site interviews are available. **Please contact April White in advance at 919.425.4169 or on site at 919.259.9152 to schedule.**

<b>What:</b>	<b>2009 North Carolina Science Summit</b>
<b>When:</b>	<b>Sunday, April 19, 2009, 1:00 PM-5:00 PM Monday, April 20, 2009, 8:00 AM-4:00 PM</b>
<b>Where:</b>	<b>Embassy Suites Raleigh-Durham/RTP 201 Harrison Oaks Boulevard Cary, NC</b>
<b>Who:</b>	<b>Teams of science educators, principals, district specialists, university faculty, and state leaders from North Carolina and surrounding states. Experts including representatives from Microsoft Corporation, National Aeronautics and Space Administration (NASA), the N.C. Department of Public Instruction, the N.C. Cooperative Extension, and MetaMetrics, Inc.</b>
<b>On-site media interview opportunities:</b>	<b>Dr. Judith Rizzo, Executive Director, Hunt Institute James B. Hunt, Jr. Hunt Institute Foundation Chairman Dr. Sam Houston, SMT Center Dr. Bill Daggett (available for media on Sunday and from 10:15 AM to 12:00 PM on Monday) and Ray McNulty, ICLE Dr. John Bransford, Researcher Presenters and participants as available</b>



## AGENDA

**Sunday, April 19**

Time	Sessions	Location
1:00-1:15 pm	<p align="center"><b>Welcome and Conference Overview</b></p> <p align="center"><b>Dr. Sam Houston</b>, President and CEO North Carolina Science, Mathematics, and Technology Education Center</p> <p align="center"><b>Dr. Judith Rizzo</b>, Executive Director and CEO James B. Hunt, Jr. Institute for Educational Leadership and Policy</p>	<b>Carolina Ballroom</b>
1:15-2:45 pm	<p align="center"><b>Opening Keynote Presentation</b></p> <p align="center"><b>Preparing Students for Their Future</b></p> <p align="center"><b>Dr. Willard R. Daggett</b>, President International Center for Leadership in Education</p>	<b>Carolina Ballroom</b>
2:45-3:15 pm	<b>Break</b>	<b>Carolina Foyer</b>
<b>Concurrent Sessions</b>  3:15-4:45 pm	<p align="center"><b>Human Creativity and the School of the Future</b></p> <p align="center"><b>Mary Cullinane</b>, Director <b>Stacey Rainey</b>, Academic Program Manager Innovation &amp; Business Development Team, Microsoft Corporation</p>	<b>Cameron</b>
	<p align="center"><b>The Brainpower Behind the Horsepower</b></p> <p align="center"><b>Dr. Mimi Dyer</b>, Director Academy of Math, Science &amp; Technology Kennesaw Mountain High School, Georgia; Consultant, International Center for Leadership in Education</p>	<b>Pinehurst</b>

Time	Sessions	Location
<p><b>Concurrent Sessions</b></p> <p>3:15-4:45 pm</p>	<p><b>Connecting Curriculum Using Brain Research — Why Teach Using Interdisciplinary Approaches?*</b></p> <p><b>Linda L. Jordan</b>, Consultant, International Center for Leadership in Education and The Center for Effective Learning; Associate Professor, Hope College</p>	<p><b>Blowing Rock</b></p>
	<p><b>Using the Rigor/Relevance Framework to Improve Instruction in the STEM Classroom</b></p> <p><b>Dr. Richard Jones</b>, Senior Consultant International Center for Leadership in Education</p>	<p><b>Chimney Rock</b></p>
	<p><b>NASA Education: Yesterday’s Dream... Today’s Vision... Tomorrow’s Hope</b></p> <p><b>Dr. Joyce L. Winterton</b>, Assistant Administrator for Education National Aeronautics and Space Administration (NASA)</p>	<p><b>Smith</b></p>
	<p><b>Developing a High Performing Rigorous and Innovative STEM School</b></p> <p><b>David R. Pinder</b>, Principal McKinley Technology High School, Washington, D.C.</p>	<p><b>Reynolds</b></p>
	<p><b>Advancing High School Innovation Through STEM Education: Wayne School of Engineering*</b></p> <p><b>Robin Marcus</b>, STEM Program Director North Carolina New Schools Project; <b>Susan Randolph</b>, Science and Engineering Teacher, <b>Tiffany Nurse</b>, Mathematics Teacher, and <b>Students</b>, Wayne School of Engineering</p>	<p><b>Mendenhall</b></p>

\* one time only

## Monday, April 20

Time	Sessions	Location
8:30-9:15 am	<p style="text-align: center;"><b>Opening Remarks</b></p> <p style="text-align: center;"><b>James B. Hunt, Jr.</b>, Foundation Chair James B. Hunt, Jr. Institute for Educational Leadership and Policy</p>	<b>Carolina Ballroom</b>
9:15-10:15 am	<p style="text-align: center;"><b>General Session</b> <b>Preparing U.S. Schools for the 21<sup>st</sup> Century</b></p> <p style="text-align: center;"><b>Dr. Willard R. Daggett</b>, President International Center for Leadership in Education</p>	<b>Carolina Ballroom</b>
10:15-10:45 am	<b>Break</b>	<b>Carolina Foyer</b>
<b>Concurrent Sessions</b>  10:45 am-12:15 pm	<p style="text-align: center;"><b>Human Creativity and the School of the Future</b></p> <p style="text-align: center;"><b>Mary Cullinane</b>, Director <b>Stacey Rainey</b>, Academic Program Manager Innovation &amp; Business Development Team, Microsoft Corporation</p>	<b>Cameron</b>
	<p style="text-align: center;"><b>Teaching and Learning Through Engagement and Relevance</b></p> <p style="text-align: center;"><b>Dr. Marshall Stewart</b>, Head, Department of 4-H Youth Development and Family and Consumer Sciences <b>Dr. Ed Maxa</b>, Associate Professor and Extension Specialist <b>Dr. Mitzi Downing</b>, Extension Assistant Professor and Specialist, <b>Amy Chilcote</b>, Extension Associate, <b>Jackie Helton</b>, Extension Assistant North Carolina Cooperative Extension</p>	<b>Mendenhall</b>
	<p style="text-align: center;"><b>Highland School of Technology— STEM Connections</b></p> <p style="text-align: center;"><b>Lee Dedmon</b>, Principal <b>Justin Beam</b>, <b>Beth Eisenhart</b>, and <b>Russell Wingfield</b>, Academy Coordinators Highland School of Technology, Gastonia, North Carolina</p>	<b>Blowing Rock</b>

Time	Sessions	Location
<p><b>Concurrent Sessions</b></p> <p>10:45 am -12:15 pm</p>	<p><b>Using the Rigor/Relevance Framework to Improve Instruction in the STEM Classroom</b></p> <p><b>Dr. Richard Jones</b>, Senior Consultant International Center for Leadership in Education</p>	<p><b>Chimney Rock</b></p>
	<p><b>Using a Public/Private Partnership to Build Momentum for Enhancing the Assessment and Instruction of Science and Math</b></p> <p><b>Dr. Carl W. Swartz</b>, Senior Research Associate MetaMetrics, Inc. <b>Angela Hinson Quick</b>, Deputy Chief Academic Officer North Carolina Department of Public Instruction</p>	<p><b>Reynolds</b></p>
	<p><b>A Tool for 21<sup>st</sup> Century Learning and Assessment</b></p> <p><b>Dr. John Bransford</b>, Shauna C. Larson University Professor of Education and Psychology; <b>Dr. Nancy Vye</b>, Senior Research Scientist; <b>Drue Gawel</b>, Graduate Student; <b>Allison Moore</b>, Learning Scientist; and <b>Rachel Philips</b>, Graduate Student, University of Washington <b>Vanessa Svihla</b>, Graduate Student, University of Texas</p>	<p><b>Pinehurst</b></p>
	<p><b>NASA Education: Yesterday's Dream... Today's Vision... Tomorrow's Hope</b></p> <p><b>Dr. Joyce L. Winterton</b>, Assistant Administrator for Education National Aeronautics and Space Administration (NASA)</p>	<p><b>Smith</b></p>
<p>12:15-1:15 pm</p>	<p><b>Lunch</b></p>	<p><b>Carolina Foyer</b></p>
<p><b>Concurrent Sessions</b></p> <p>1:15-2:45 pm</p>	<p><b>Inquiry Science– What's Going On in There?*</b></p> <p><b>John Cafarella</b>, Independent Education Consultant</p>	<p><b>Cameron</b></p>
	<p><b>The Brainpower Behind the Horsepower</b></p> <p><b>Dr. Mimi Dyer</b>, Director Academy of Math, Science &amp; Technology Kennesaw Mountain High School, Georgia; Consultant, International Center for Leadership in Education</p>	<p><b>Chimney Rock</b></p>

\* one time only

Time	Sessions	Location
<p><b>Concurrent Sessions</b></p> <p>1:15-2:45 pm</p>	<p><b>Highland School of Technology—STEM Connections</b></p> <p><b>Lee Dedmon</b>, Principal  <b>Justin Beam, Beth Eisenhart, and Russell Wingfield</b>,  Academy Coordinators  Highland School of Technology, Gastonia, North Carolina</p>	<p><b>Blowing Rock</b></p>
	<p><b>Developing a High Performing Rigorous and Innovative STEM School</b></p> <p><b>David R. Pinder</b>, Principal  McKinley Technology High School, Washington, D.C.</p>	<p><b>Reynolds</b></p>
	<p><b>Using a Public/Private Partnership to Build Momentum for Enhancing the Assessment and Instruction of Science and Math</b></p> <p><b>Dr. Carl W. Swartz</b>, Senior Research Associate  MetaMetrics, Inc.  <b>Angela Hinson Quick</b>, Deputy Chief Academic Officer  North Carolina Department of Public Instruction</p>	<p><b>Smith</b></p>
	<p><b>A Tool for 21<sup>st</sup> Century Learning and Assessment</b></p> <p><b>Dr. John Bransford</b>, Shauna C. Larson University Professor of  Education and Psychology  <b>Dr. Nancy Vye</b>, Senior Research Scientist; <b>Drue Gawel</b>,  Graduate Student; <b>Allison Moore</b>, Learning Scientist; and  <b>Rachel Philips</b>, Graduate Student  University of Washington  <b>Vanessa Svihla</b>, Graduate Student, University of Texas</p>	<p><b>Pinehurst</b></p>
	<p><b>Teaching and Learning through Engagement and Relevance</b></p> <p><b>Dr. Marshall Stewart</b>, Head, Department of 4-H Youth  Development and Family and Consumer Sciences  <b>Dr. Ed Maxa</b>, Associate Professor and Extension Specialist  <b>Dr. Mitzi Downing</b>, Extension Assistant Professor and  Specialist, <b>Amy Chilcote</b>, Extension Associate,  <b>Jackie Helton</b>, Extension Assistant  North Carolina Cooperative Extension</p>	<p><b>Mendenhall</b></p>
<p>2:45-3:00 pm</p>	<p><b>Break</b></p>	

Time	Sessions	Room
3:00-4:00 pm	<p data-bbox="586 289 1146 352"><b><i>Closing General Session</i></b> <b>Bringing Best Practices to Scale Right Now!</b></p> <p data-bbox="583 380 1149 443"><b>Ray McNulty</b>, Senior Vice President International Center for Leadership in Education</p>	<b>Carolina Ballroom</b>



## Science Education Facts at a Glance

- According to the most recent results from the *National Assessment of Educational Progress (NAEP)* in science, only 22 percent of eighth graders in North Carolina are proficient in science while 47 percent are below basic. Among the state's fourth graders, only 25 percent are proficient in science while 35 percent are below basic. (National Assessment of Educational Progress, 2005)
- There are also disparities in achievement on the *NAEP* science assessments between white and minority eighth graders in North Carolina. Among African-American and Hispanic eighth graders in North Carolina, only six percent and 12 percent respectively are proficient in science while 31 percent of white eighth grade students are proficient. (National Assessment of Educational Progress, 2005)
- Over the past decade, North Carolina has seen a decline in the percentage of high school students taking higher level science courses. According to data from the Council of Chief State School Officers, 54 percent of graduating seniors in 2006 took an introductory chemistry course during high school, which was a nine percentage point drop from 1996. Twelve percent of graduating seniors in 2006 took an introductory physics course during their high school career, which was an eight percentage point drop since 1996. (Council of Chief State School Officers, 2007)
- North Carolina students take and receive credit for Advanced Placement (AP) exams in science at a higher rate than their peers across the nation. For the class of 2008, 13 percent of North Carolina public high school students took an AP Science Exam during high school compared to eight percent of students nationally. Seven percent of the North Carolina public high school Class of 2008 earned a three or higher on an AP Science Exam compared to only 4 percent of students nationally. (The College Board, 2009)
- Seventy percent of North Carolina science teachers hold a degree in science, which is below the national average of 77 percent. (Council of Chief State School Officers, 2007)
- On average, North Carolina teachers in grades four through six spent approximately two hours per week teaching science, which was below the national average of three hours per week. Nationally, teachers in grades four to six average three hours per week teaching science, compared to 10 hours teaching English/ reading/language arts, five hours teaching math, and three hours teaching social studies/history. (Council of Chief State School Officers, 2007)
- Out of 30 Organization for Economic Cooperation and Development (OECD) countries, the United States ranked 21<sup>st</sup> in combined science literacy on the 2006 Program for International Student Assessment. (National Center for Education Statistics, 2007)