

IMSA360

SUMMER2009

News for Alumni and Friends of the
Illinois Mathematics and Science Academy®

IMSA Alumni: Compelled to Improve Lives

100 PROJECTS FOR PEACE
CHICAGO PUBLIC SCHOOLS FERMI
NATIONAL ACCELERATOR LABORATORY
FULBRIGHT SCHOLARS GOPICNIC, INC.
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NETSCAPE PAYPAL PEACE
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FROM THE PRESIDENT

Dr. Glenn W. "Max" McGee
IMSA President

Many will measure IMSA's work to "ignite and nurture creative, ethical scientific minds that advance the human condition" by the contributions of our alumni. I am proud to say that we pass that rigorous test with flying colors. Sixty percent of our alumni earn undergraduate degrees in science, technology, engineering or mathematics (STEM) compared to the national average of 33 percent. As undergraduate and graduate students, they attend the most highly selective colleges and universities in the nation, earning numerous academic, research and leadership accolades including Fulbright, Marshall, National Science Foundation, Rhodes, Truman and Siebel Scholarships. Throughout their careers, alumni forge frontiers as nationally recognized scientists, entrepreneurs, engineers, physicians, information technology experts, military officers and leaders in other fields.

The feature story of this issue of *IMSA360* shares more than statistics about our alumni. It profiles individuals who, day in and day out, use their talents to create a better world. Some alumni produce sweeping breakthroughs that impact many citizens, whereas others profoundly impact individuals, one life at a time. While each alumnus has a different story, one theme cuts across all stories—a desire to make a difference.

This issue also shares the good news that IMSA was named a 2009 *Intel Schools of Distinction* winner, taking the top honor nationwide for "science excellence" at the high school level. Each year, only one high school in the nation is the recipient of this prestigious recognition. Even the Illinois House of Representatives recognized this wonderful honor by issuing a House Resolution to congratulate members of the IMSA community. In addition, for the fourth consecutive year, IMSA was named to the "Public Elites" list in *Newsweek* magazine's annual Best High Schools in the U.S. special report.

We also highlight the successful ceremonial ribbon cutting event for our Chicago Field Office located at James R. Doolittle Jr. Elementary School. The event featured Illinois State Senator Donne Trotter as the keynote speaker and other honored program participants including Illinois State Representative William Burns, Chicago Alderman Toni Preckwinkle and Chicago Public Schools Instructional Officer Katherine Volk.

While the *Intel Schools of Distinction Award* and the Chicago Field Office opening were incredible ways to finish Academic Year 2009, we are not resting on our laurels. Soon, we will open another Field Office in the Metro East area and our Strategic Plan will guide us toward more ambitious initiatives for Academic Year 2010.

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Brenda Buschbacher

Contributing Writers

Brenda Buschbacher
Andrea (Ande) Croll '97
Carolyn Johnson
Dr. Glenn W. "Max" McGee
Suzyn Price
Jane St. Pierre
Catherine C. Veal

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Send comments, questions or story ideas to:
Brenda Buschbacher
brenda@imsa.edu

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NEWSHEADLINES

News for alumni and friends of the
Illinois Mathematics and Science Academy® (IMSA)

Motorola Foundation Innovation Generation Grant Expands Professional Development

The Motorola Foundation awarded the IMSA Fund for Advancement of Education a third Innovation Generation Grant to enhance teaching and learning in science, technology, engineering and mathematics (STEM).

The \$75,000 grant enables IMSA to expand Problem Based Learning (PBL) professional development to teachers in a new site, in addition to those in Carterville, Chicago, Rockford and Springfield. Through three Innovation Generation Grants, the Motorola Foundation has generously provided a total of \$275,000 for PBL professional development expansion.

ComEd, An Exelon Company, Supports the IMSA Energy Center

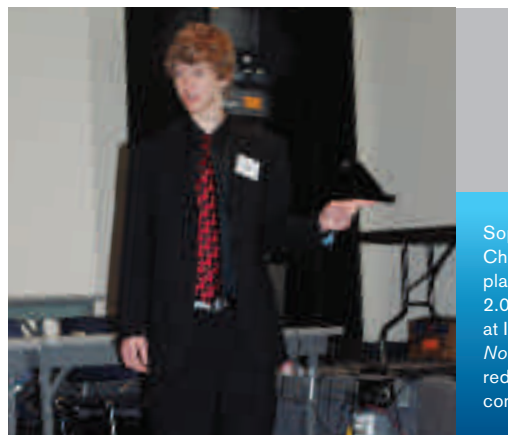
A ComEd grant of \$23,500 to the IMSA Fund for Advancement of Education will support IMSA Energy Center initiatives. The Energy Center enables IMSA students to create tangible products and solutions for a more sustainable future for all. Student projects include: developing biofuels, initiating solar panel energy projects, hosting energy seminars, building a traveling Energy House and producing affiliated K-8 curricula to educate Illinois students about alternative energy.

Seniors Honored With Scholarships and Service Award

Several seniors were honored with scholarships and a service award administered through the IMSA Fund for Advancement of Education. Kristen Lee received the Knight Family IMSA Scholarship, Anamaria Filipac received the Mary Van Verst Love of Science Scholarship and Hannah Schmitt was a recipient of the Namkung Memorial Music Scholarship Fund. Katherine Tu was presented with the John H. McEachern, Jr. Exemplary Service Learning Award.

Innovation Experts Served as Judges in IMSA's First TALENT 2.0 Power Pitch Contest

A prestigious panel of four innovation experts served as judges for the first TALENT 2.0 Power Pitch Contest at IMSA. The event featured student teams and individual students who presented five-minute pitches about eight exciting new business ventures to a prominent panel of investors and business leaders, including: John Hoesley '89, partner at Prism Capital; Kapil Chaudhary, principal for the Illinois Innovator Acceleration Fund; John Noel, president of the Illinois Technology Development Alliance; and David Weinstein, president of the Chicagoland Entrepreneurial Center.



Sophomore Dane Christianson is the first-place winner in the TALENT 2.0 Power Pitch Contest at IMSA for his product, *NoVamp*, a device that reduces appliance energy consumption.

The first-place winner of a \$3,000 award was Dane Christianson for *NoVamp*, a device that shuts off standby appliances when it detects that they are not being used. Second-place winners of a \$2,000 award were Amanda Cohen and Issurah King for *CrownGardian*, a real-time AGPS emergency tracking system inserted as a tooth filling and used to locate people who are in dangerous situations. Two teams were tied for the third-place prize of \$1,000: Spencer Andrews and Kyle Hanson were recognized for *Trendicious*, a demographic-based and data-driven review service for consumer products; Abby Chao,



Students from Lindblom Academy in Chicago share their ideas for enhancing dialysis equipment for children.



Jimmy Lu, Elliot Margul and Michael Mirski were recognized for *kynoo*, an online community for finding and sharing new movies through user-generated reviews.

The project is made possible in part by a generous gift from Virginia B. Cherry.

IMSA Hosts Illinois Innovation Talent Program Culminating Event

Illinois organizations and high schools participating in the Illinois Innovation Talent (ILIT) Pilot Program were part of a Culminating Sharing and Celebration Event on May 1 at IMSA.

The ILIT Pilot Program—a public-private partnership—created a unique learning environment where students worked in teams alongside industry, government and community experts to solve real-world problems. For this sharing event, each school/business partner team delivered a presentation that included a statement of the problem, an overview of the students' solution and an explanation of the partner's response to and/or use of the solution.

During the pilot year, 23 Illinois high schools and 29 professional organizations from across Illinois participated in the program. Designed to increase student achievement in math, science and engineering, ILIT also promotes career awareness and better equips students with the skills necessary to remain competitive in today's innovation and technology-based economy. IMSA provided ongoing professional development in problem-based learning to the teams.

The presentations included: creating environmentally friendly housing subdivisions, developing wireless service zones in a community, using robotics to improve bridge safety, enhancing home dialysis equipment for children, developing biofuels and more.

Partners included the Chicagoland Chamber of Commerce, iBio, Illinois Board of Higher Education, Illinois Department of Commerce and Economic Opportunity, IMSA, Illinois State Board of Education and others.

Student Achievements Recognized in National and Global Venues

Patrick Hurst was selected to be a member of the United States Physics Team. Only 20 students nationally were chosen for the 2009 team (from a pool of more than 2,000 nominees). Bonny Jain was named a semi-finalist in the competition.

Eric Shyu, an Intel Science Talent Search finalist, co-authored the article, "A Chiral Luminescent Coordination Polymer Featuring a Unique 4-Connected Self-Catenated Topology Built from Helical Motifs," by Eric Shyu, Ronald M. Supkowski, and Robert L. LaDuca in *Inorganic Chemistry*: 48 (7) : 2723-2725. *Inorganic Chemistry* is published by the American Chemical Society.

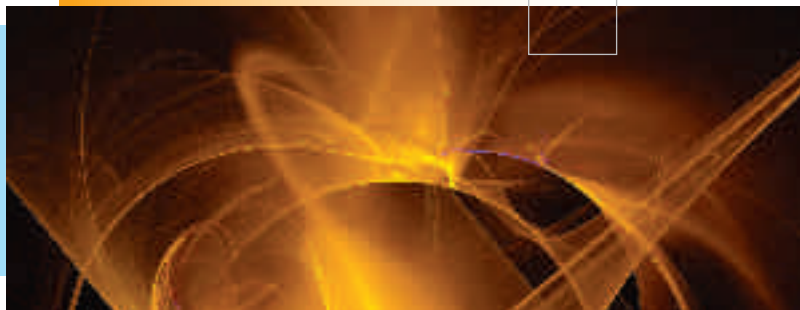
Ana Dumitrescu, Leslie Martin and Elizabeth Murphy won first place in Level One of Valparaiso University's First Annual Indiana-Illinois High School Chinese Speech Contest.

Shravanthy Gumidyala, Jonathan Loucks, Jonathon Schwarzbauer, Arika Verma and Weili Zheng qualified as finalists for the Intel International Science and Engineering Fair, known as the largest science competition of its kind.

Chris (Seohyun) Kim, Alina Kononov, Vlad Kontsevoi, Ethan (Yize) Leng and Paul Yuan qualified for the United States of America Mathematical Olympiad.

Newsweek Names IMSA Among Best in Nation

Newsweek included IMSA among the "Public Elites" in its 2009 list of 16 secondary educational institutions with the highest ACT and SAT scores in the nation.



Jessica Durden qualified for the National Chemistry Olympiad Competition.

Yaseen Jamal, Sushma Kola and Jenny Shao qualified to participate in the National Junior Science and Humanities Symposium (JSHS), sponsored by the U.S. Army, Navy and Air Force. JSHS aims to widen the pool of scientific and engineering talent for our nation.

Anusha Kumar won second place in the United States Brain Bee competition held in Maryland. Questions at the competition were taken from the British Neuroscience Association's publication *Neuroscience: the Science of the Brain*.

Shaine Strullmyer was selected to receive the 2008-2009 National Association of Secondary School Principals Leadership Award.

Pedro Aguirre, Brian Flynn and Bethliz Irizarry were awarded National Security Language Initiative (NSLI) for Youth Scholarships to study Russian in Kazan, Russia, for seven weeks during summer 2009. NSLI for Youth is sponsored by the U.S. government and is administered by the Bureau of Educational and Cultural Affairs of the U.S. Department of State. The recipients will live with host families and attend a language summer camp.

Tasha Arvanitis, Irene Chen and Cathy Li qualified as a team for the All Star Competition of the American Computer Science League in Huntsville, Alabama.

IMSA Faculty and Staff Achieve Recognition/Contribute to Their Fields

IMSA President Dr. Glenn W. "Max" McGee was featured in the May issue of *Technology and Learning* as part of its series highlighting national technology leaders in education. *Technology and Learning* is a national magazine that serves "the K-12 education community with practical resources and expert strategies for transforming education through integration of digital technologies."

Science faculty member Dr. Susan Styer's article, "Constructing & Using Case Studies in Genetics to Engage Students in Active Learning," was featured in the March 2009 issue of *The American Biology Teacher*. The publication, a nationally recognized peer-reviewed journal, "Brings teachers specific how-to-do-it suggestions for the classroom and laboratory, field activities, interdisciplinary programs, and articles on recent advances in biology and life science."

IMSA mathematics faculty member Dr. Vince Matsko was elected to the Board of the Illinois Section of the Mathematics Association of America (ISMAA).

Dr. Stephanie Pace Marshall, IMSA founding president and president emerita, was invited by the National Science Board to be part of the two-day "Expert Panel Discussion on Preparing the Next Generation of STEM Innovators" led by the Board's Committee on Education and Human Resources. Dr. Marshall will be an expert panelist for the topic, "Developing STEM innovators through the education system." The event will be held August 24-25, 2009 at the National Science Foundation in Arlington, Virginia.

The American Association of Teachers of German selected world languages faculty member John Stark to participate in "Die Entwicklung von interkultureller Kompetenz im Kontext DaF: Lernziele, didaktische Ansätze und Evaluierung (EIKK)," a two-week summer seminar designed to develop knowledge and skills in the teaching of intercultural competence for active high school and college/university faculty. This expense-paid seminar, conducted in German at the University of Leipzig, focuses on the development of goals, teaching models and evaluation in the field of intercultural competence and understanding.

ALUMNI-IN-ACTION

Probing the Mind



Aerin Hyun '90 is a resident in Adult Psychiatry at Columbia University in New York, and is a graduate of the Medical Scholars Program at the University of Illinois at Urbana-Champaign (UIUC). Aerin is a member of Phi Kappa Phi, as well as the

recipient of the Arnold P. Gold Foundation's Humanism in Medicine Award, the University of Illinois College of Medicine Bennett Award for Excellence in Teaching, the UIUC College of Medicine Award for Significant Contributions in Psychiatry and the UIUC Department of English Roxanne A. Decyk Scholar Fellowship. Her current academic interests include psychoanalysis (adult and child), child and adolescent psychiatry and medical student education.

Leading the Global Electronic Trading Industry



Ryan Pierce '95 was appointed Technical Director at FIX Protocol Ltd. (FPL), a non-profit organization that owns the intellectual property rights of the Financial Information eXchange Protocol (FIX), which is available free of charge from the FPL

Web site (subject to FPL's copyright and acceptable use policy). FIX is a globally recognized messaging standard that enables the electronic communication of pre-trade and trade messages between financial institutions, primarily investment managers, broker-dealers, ECNs and exchanges. According to an FPL press release, Ryan "will help guide the evolution of the FIX standard and will work closely with trading venues based across the globe to ensure that they are able to offer a standardized version of the FIX Protocol to their trading partners." The release also stated that "Ryan has extensive experience within the electronic trading industry, much of which has been spent focused on FIX implementation projects with previous employers, Barclays Capital, Lehman Brothers and Townsend Analytics. He has been an active member of FPL since the 1990s and has contributed to the development of each version of the protocol since FIX 4.1, which was released in 1998."

Alumnus Takes Audiences on Space Journey



Internationally acclaimed astronomer **Dr. Scott Gaudi '91** returned to his Illinois roots to share his love of science and the joys of discovery during two back-to-back lectures at IMSA and the Adler Planetarium and Astronomy Museum. Gaudi, an assistant

professor in the Department of Astronomy at The Ohio State University, received worldwide media attention for leading a team of 69 international astronomers in discovering a solar system similar to our own. He also was recently awarded the Helen B. Warner Prize for "significant contribution to observational or theoretical astronomy" by the American Astronomical Society. His lecture, "A Quest for Our Origins: From Rural American Kid to Professional Astronomer," was held during the IMSA-A Shining Star event held on March 5, 2009 at the Adler Planetarium and Astronomy Museum in Chicago. The event, sponsored by Abbott Laboratories and the Blue Cross Blue Shield Association, attracted 150 prominent business, education and state government officials for an evening featuring a dinner, silent auction and Dr. Gaudi's special presentation. Visit <https://www3.imsa.edu/news/features/Adler> to see his Adler lecture.

Influencing and Educating for Youth



Nicole Brown '00 gave the keynote address at the 2009 IMSA Award of Excellence ceremony, held at IMSA on March 20, 2009. Each year, IMSA sophomores are invited to nominate a former educator who most challenged, inspired and

supported their academic or personal growth prior to enrolling at IMSA. Educators represent both public and private schools throughout Illinois. Brown, a math teacher at Morgan Park High School in Chicago, encouraged fellow teachers in the audience to continue to influence others throughout life in order to create a "cycle of being influenced and influencing others."

100 PROJECTS FOR PEACE CHICAGO PUBLIC SCHOOLS FERMIONA
SCHOLARS **GOPICNIC, INC.** ILLINOIS STATE POLICE **NETSCAPE**

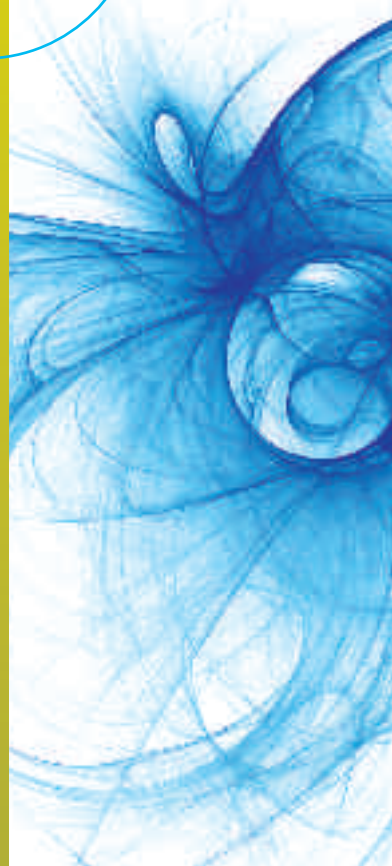
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NATIONAL ACCELERATOR LABORATORY FULBRIGHT
PE PAYPAL PEACE CORPS YELP, INC. YOUTUBE

Aside from being extremely talented and accomplished in fields such as science, technology, engineering and mathematics (STEM) and the humanities, IMSA alumni seem to have one other thing in common: **the ability to seek out and/or create opportunities to improve people's lives.**



Young Alumni Impact Global Citizens

In a note to IMSA President Dr. Glenn W. "Max" McGee, IMSA alumna Gokila Pillai '08, a freshman biology major at Northwestern University, said her 100 Projects for Peace proposal was a worthwhile cause to take on because "it's exciting to be doing something that seems important and relevant to the world that is not related to my courses."

Written jointly by Pillai and Cristina Thomas '07, the proposal—titled *Project Female* and addressing anemia in India—was chosen as one of the winning projects and resulted in a \$10,000 grant. Both IMSA alumni are deeply committed to female health, adolescent education and social justice. Thomas, also a biology major at Northwestern, worked in a women's health laboratory and founded a group that delivers resources to an orphanage for handicapped children in Kerala, India.

"It was during my time at IMSA that I really began to think about the idea of social responsibility, especially in clubs such as LORAX and with teachers or staff," Pillai said.

"Working with [IMSA] administration and faculty as well as my fellow peers, I realized exactly how much power an individual, even a student, with a simple idea and some initiative can have. I felt empowered and enabled to affect change, and that mentality graduated with me."

~Gokila Pillai '08
Northwestern University student
and Projects for Peace winner

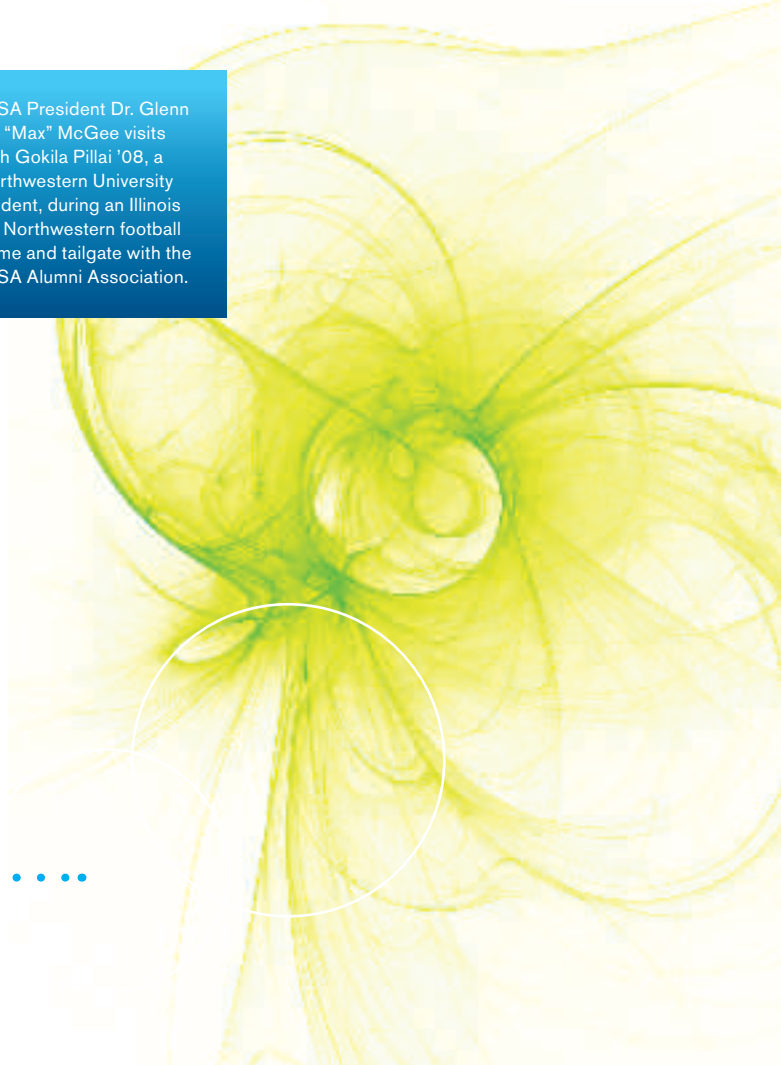


According to the Web site, the objective of the Davis Projects for Peace is to "encourage and support today's motivated youth to create and try out their own ideas for building peace."

IMSA President Dr. Glenn W. "Max" McGee visits with Gokila Pillai '08, a Northwestern University student, during an Illinois vs. Northwestern football game and tailgate with the IMSA Alumni Association.

Their award-winning project will provide school workshops, iron supplementation and an annual "Health and Nutrition Week" for 200 female students at St. George Lower Primary School in the Kottayam District of Kerala. Eventually, their proposal hopes to reach 60,000 residents by partnering with local community agencies.

Pillai said she credits IMSA for instilling in her a sense of "social responsibility."





Another global humanitarian, Janessa (Stream) Graves '99 (pictured above), received the prestigious Gilbert S. Omenn Award for Academic Excellence, one of the highest graduate awards given from the School of Public Health and Community Medicine at the University of Washington in Seattle. The award recognizes both exemplary academic achievement and significant contributions to public health. Janessa received her Master of Public Health degree and is now in a doctoral program to pursue studies in Environmental Health. She recently received a grant from the American Public Health Association and Colgate-Palmolive to conduct research on hygiene and hand washing in Western Kenya. This past summer, she worked with the U.S. Centers for Disease Control in Kisumu, Kenya to evaluate hygiene and sanitation curricula for primary schools.

Carrie (Giordano) Eklund '99 and her husband Scott are serving in their second year as Peace Corps Volunteers in Jamaica, working with the Jamaican Ministry of Health to improve water and sanitation in the Western Region.

Many IMSA alumni also have served the world as Fulbright Scholars or Fulbright English Teaching Assistants (ETAs). In the fall, Akta Jantrania '05 will serve as an ETA in Korea where she will teach English to secondary school students. "I look forward to a challenging and rewarding experience, not only teaching English conversation in a Korean school, but also learning about Korean culture," Jantrania said. "Though I have never traveled to East Asia, I have taken classes and conducted research on the economy, politics and culture of the region. Thus, this is the perfect opportunity for me to deepen my understanding of Korea through a first-hand experience while fostering empathy between the Korean and American cultures."

Jantrania said she is thankful for her IMSA education and the doors it has opened for her.

"My experience with a mentorship at the Children and Family Justice Center [at Northwestern University Law School] also initiated my interest in the field of law," she added.

Alumni Innovators Drive Technological and Scientific Breakthroughs and More

Although they have not yet reached the age of 40, IMSA's alumni already have created trailblazing technology, made discoveries that have changed the social landscape of our world and opened the doors to progress and hope for generations to come.

IMSA alumni are behind the development of Netscape, PayPal, YouTube and Yelp, Inc., breakthrough innovative technology applications that people around the world use every day in their professional and personal lives. In addition, other alumni have made scientific discoveries or created technologies that have made significant contributions to their fields.

"Dr. [Robert] Kiely's International Relations class encouraged me to pursue an International Relations major at Claremont McKenna College [in addition to a Philosophy, Politics, and Economics major] and to look for opportunities to expand my education beyond the water's edge."

~Akta Jantrania '05
Fulbright English Teaching Assistant

These alumni include:

internationally acclaimed astronomer **Dr. Scott Gaudi '91**, who received worldwide media attention for leading a team of 69 international astronomers in discovering a solar system similar to our own. He also was recently awarded the Helen B. Warner Prize for "significant contribution to observational or theoretical astronomy" by the American Astronomical Society.

Rob McCool '91, who deserves much of the credit for the initial growth of the World Wide Web and also for the infrastructure that drives most of the world's Internet Web servers. McCool, along with his twin brother and fellow IMSA graduate **Mike McCool '91** served on the team at the University of Illinois at Urbana-Champaign that created Mosaic, the Internet Browser used to start Netscape.

Dr. Mia Markey '94, who is recognized as one of the world's leaders of the young generation of biomedical computing. Her research contributions focus on computer-based clinical decision-making and support. Her mission of designing cost-effective, computational medical decision aids will help physicians better diagnose, treat and manage cancer.

Yu Pan '95, who was one of the six founding team members of PayPal, an eBay company that has revolutionized the way people do business on the Internet. Pan implemented PayPal's first flagship product that allows secure storage and transmission of funds. In addition, he developed Web technologies that enabled PayPal to dominate auction payments on eBay. Pan also was the first employee at YouTube, where he worked in engineering and product development with **Steven Chen '96**.

Russel Simmons '95, who is co-founder and chief technology officer of Yelp, Inc. (www.yelp.com), the growing online community enabling people to write and share reviews of local businesses with others. Prior to Yelp, Simmons was one of the six founding members of PayPal, an eBay company.

Steven Chen '96, who is co-founder and chief technology officer of YouTube.com, the online video sharing Web site which has revolutionized the creation and sharing of videos across the globe. Founded in February of 2005, YouTube instantly became a viral video phenomenon; according to the YouTube Web site, today "people are watching hundreds of millions of videos a day" and "uploading hundreds of thousands of videos daily" at a rate of ten hours of video every minute.

Alumni Making a Difference in Illinois

IMSA alumni also give back and contribute in numerous ways as members of the State of Illinois' workforce.

The following are just a few examples of IMSA alumni living and working in Illinois:

John Hoesley '89 is the treasurer for the IMSA Fund Board of Directors and a partner at Prism Capital Corporation in Chicago.

Erin Roche '89 is the second vice chairman for the IMSA Board of Trustees and principal of Prescott Magnet Cluster School in Chicago.

Sendhil Revuluri '90 is the senior instructional specialist for secondary mathematics in the Chicago Public Schools. In this role, he works with colleagues in mathematics and across disciplines to manage the implementation of curriculum, teacher supports and assessments in more than 40 high schools, as well as influencing other aspects of mathematics teaching and learning in the district.

Dr. Andrew Hocker '91 is a scientist working on the International Linear Collider, the next big project for Fermi National Accelerator Laboratory (Fermilab).

Dr. Tuwanda Williamson '91 helps the state's urban residents by working as a physician in inner-city Chicago at a local health center.

Julia Stamberger '92 is the co-founder and president of her Chicago-based company, GoPicnic, Inc. (www.GoPicnic.com), which supplies boxed meals that don't require refrigeration to United Airlines on select flights. Her company has been featured in *Crain's Chicago Business* and received a grant from the Illinois Department of Commerce and Economic Opportunity's Innovate Illinois program.

Amanda Leonard Shanbaum '96 is a forensic scientist with the Drug Chemistry Division of the Illinois State Police where she tests for the presence of controlled substances in evidence brought to the lab by police and presents the results to the court system. She also works with police at crime sites to determine which items are of evidentiary value.

"It is important to me to give back because I strongly believe in the power of education to allow every person to reach their potential, providing opportunity and social mobility especially for students who are chronically denied them. I also believe that education is a crucial 'enabling technology' that will help us solve the other problems confronting us today in our economic, political, social and natural worlds."

~Sendhil Revuluri '90

Senior Instructional Specialist, Mathematics
Department of High School Teaching and Learning
Office of High Schools and High School Programs, Chicago Public Schools





IMSA alumni also give back to the IMSA community in numerous ways, including serving on the IMSA Board of Trustees and IMSA Fund Board of Directors, teaching at Intercession, mentoring students in the new Alumni Sibling program and sharing career advice during the evening *College, Career, Choices* forums.

In addition, alumni have also come back to work with IMSA students involved in our TALENT program and Robotics club. Nathan Fogg '92 (pictured above), a senior engineer with Caterpillar in Aurora, served as the Robotics team mentor and worked with the team on a weekly basis during the build season prior to competition, and also attended many planning and organizing sessions. He also completed the welding of the wheel boxes for this year's robot.

Other alumni involved in the TALENT program this year included John Hoesley '89, David Joerg '89, Julia Stamberger '92, Sachin Agarwal '98 and Dan Moorehead '05.

Alumni involvement with IMSA has continued to grow over the years, and with that the IMSA community—including its students and staff—have gained an education that is truly priceless.



Alumni At-a-Glance

The five Illinois colleges or universities that enrolled the highest number of IMSA graduates (Classes of 2006-2008) were: University of Illinois at Urbana-Champaign, University of Illinois at Chicago, The University of Chicago, Northwestern University and Illinois Institute of Technology.

The five out-of-state colleges or universities that enrolled the highest number of IMSA graduates (Classes of 2006-2008) were: Case Western Reserve University, Duke University, Massachusetts Institute of Technology (M.I.T.), California Institute of Technology and Washington University in St. Louis.

As undergraduate and graduate students, IMSA alumni receive numerous academic, research and leadership accolades including Fulbright, Marshall, National Science Foundation, Rhodes, Siebel and Truman Scholarships.

IMSA's highly accomplished graduates are forging new frontiers as nationally recognized scientists, entrepreneurs, engineers, information technology specialists, educators and leaders in other fields. IMSA alumni were part of the start-up teams that created Netscape, PayPal and YouTube.



IMSA Homecoming Special Events to Honor Alumni Award Winners



IMSA Homecoming Special Events

Mark your calendars for September 26, 2009 to come home to IMSA for a day of celebration in honor of alumni!

Festivities will kick off with morning activities at IMSA, followed by afternoon celebrations off-campus, including the Third Annual IMSA Board of Trustees Alumni Awards Ceremony and Luncheon. For details, visit https://www3.imsa.edu/alumni/news_events/homecoming_09.

Check out highlights from last year's Homecoming activities at https://www3.imsa.edu/alumni/news_events/homecoming.

Alumni Awards

Five extraordinary alumni will be honored at the IMSA Board of Trustees Alumni Awards Ceremony, to be held on the afternoon of Saturday, September 26, 2009.

These awards are the highest honors given to alumni in recognition of their accomplishments and their contributions to their professions, to IMSA, and to the citizens of our nation and the world. Two categories of awards will be given: the Alumni Distinguished Leadership Award and the Alumni Titan Award.

For complete profiles of the following alumni award recipients, visit www.imsa.edu/alumni/awards/recipients09. Nominations are currently being accepted for next year's awards at www.imsa.edu/alumni/awards.

The Alumni Distinguished Leadership Award

The Alumni Distinguished Leadership Award is an annual award that honors alumni who have made distinguished achievements or leadership contributions in their professional fields of endeavor consistent with IMSA's mission. The awardees also may be recognized for significant civic or community contributions, or for extraordinary courage and selflessness under challenging circumstances.

Dr. Thandeka Chapman '89



Dr. Thandeka Chapman is an associate professor of Urban Education in the Department of Curriculum and Instruction at the University of Wisconsin–Milwaukee. She has conducted research on policy implementation in desegregated schools, urban small school reforms, teaching and learning in racially diverse classrooms and evaluating Social Justice curricula. Her most recent publications are six edited volumes of the *History of Multicultural Education*, co-edited with Carl A. Grant. Other works by Chapman are published in *Race Ethnicity and Education* (2005), *Anthropology and Education* (2007) and *The Educational Researcher* (2007). She is the current Program Chair for the American Educational Research Association, Teachers and Teacher Education Division (K). Chapman also works with several small high schools in Milwaukee to align their innovative curricula with benchmark assessments and state and district standards. She has shared her expertise with the IMSA community as a member of the Admissions Review Committee and as a guest speaker during IMSA's multicultural week. Chapman is a graduate of Spellman College, the University of Michigan–Ann Arbor and the University of Wisconsin–Madison.

Dr. Rebecca Willett '96



Dr. Rebecca Willett is an assistant professor in the Department of Electrical and Computer Engineering at Duke University. Her teaching and research interests are focused on signal and image processing techniques and how these can be applied to help advance other fields, including medical imaging, astronomy, networks and bioinformatics. As a testimony to the broad implications of her research, Willett is assisting the Department of Defense through her work on the Computer Science Study Panel, run by the Defense Advanced Research Projects Agency (DARPA) and the Institute for Defense Analyses. Willett has

received numerous awards, including the National Science Foundation CAREER Award, a prestigious recognition for young faculty. Willett remains active in her community by encouraging young children to explore their potential in math and science. She is a volunteer instructor for FEMMES (Females Excelling More in Math, Engineering, and Science), an organization that provides outreach programs related to math, science and engineering for young girls from Durham public schools. She also serves as an exhibit leader for the Sally Ride Science Festivals. Willett is a graduate of Duke University and Rice University.

The Alumni Titan Award

The Alumni Titan Award is an annual award that honors alumni who, through outstanding service to IMSA, advance the institution's mission and work. The honorees are enthusiastic and energetic IMSA champions who dedicate significant time, talent and/or treasure to endeavors that help the Academy fulfill its role in developing talent and leadership in mathematics, science and technology for our state, nation and world.

Pooja Agarwal '01



Following graduation, Pooja Agarwal became actively involved in the IMSA Alumni Association and served as an at-large cabinet member for three years. She volunteered as an Intersession facilitator from 2004-2007 and assisted as the alumni liaison in

2006, recruiting alumni to volunteer and organize appreciation activities. Agarwal's efforts helped to build the foundation for alumni volunteerism at Intersession, which reached record-high alumni participation in 2009. Since 2001, she also has been actively involved in the IMSA Kids Institute® (KI) program as a teacher and member of the KI Alumni Advisory Committee. Agarwal coordinated a highly successful five-year reunion for her class and co-coordinated an alumni regional event in St. Louis. She served as a class agent for two years in support of the IMSA Fund for Advancement of Education and serves as a member of the IMSA President's Alumni Advisory Council (IPAAC). Agarwal is currently studying toward a Ph.D. in Cognitive Psychology at Washington University in St. Louis as a National Science Foundation Graduate Research Fellow. She also serves as research coordinator for a grant from the Institute of Education Sciences, conducting learning and memory research at a middle school in Columbia, Illinois. She is a proud recipient of the Harry S. Truman Scholarship for her leadership and commitment to public service, and is the vice president of the Truman Scholars Association.

Joshua Gerlick '99



Joshua Gerlick is a loyal and generous advocate for IMSA. In early 2005, Gerlick participated in interviews for the IMSA TALENT Director. He returned later in the year to serve as the Convocation speaker and, again, in 2006 as an Intersession facilitator. During the

2006-07 school year, Gerlick dedicated a substantial amount of time toward volunteering at IMSA (while relocating his home and business from Pittsburgh to Michigan) and has served as a class agent for the Annual Fund solicitation. In April 2007, Gerlick spent a week at IMSA, attending the IMSA20 Anniversary Celebration and Awards Dinner, participating in IMSAloquium as a poster judge and returning to campus for the Presidential Candidates Day. Gerlick currently serves on the IMSA President's Alumni Advisory Council (IPAAC). A graduate of Carnegie Mellon University, Gerlick was the founding CEO of EADevices and has extensive experience in product development, management consulting, team building and IT architecture development.

Sendhil Revuluri '90



Sendhil Revuluri was instrumental in laying the foundation for many of IMSA's current alumni outreach activities. Revuluri was one of a small group who worked diligently to build the alumni network and the IMSA Alumni Association (IAA).

As a cabinet member and treasurer of the IAA, Sendhil assisted with early online outreach efforts, reunion planning and fundraising appeals to alumni. His efforts paved the way for a multi-year campaign to reach the \$1 million goal for alumni contributions to the IMSA Fund for Advancement of Education. Revuluri also served as a member of the IMSA Fund Board of Directors, helped to coordinate regional events for alumni in New York and Chicago and now serves on the IMSA President's Alumni Advisory Council (IPAAC). Revuluri studied physics and mathematics at The University of Chicago and traded equity derivatives for eight years before he helped found the Bronx Academy of Letters, a new public secondary school. In 2008, he became the senior instructional specialist for mathematics in the Chicago Public Schools. In this role, he works with colleagues in mathematics and across disciplines to manage the implementation of curriculum, teacher supports and assessments in more than 40 high schools, as well as influencing other aspects of mathematics teaching and learning in the district.

IMSA Intel Award

IMSA Wins Top Honor Nationwide for “Science Excellence” in *Intel Schools of Distinction*

IMSA has been named a 2009 *Intel Schools of Distinction* winner, taking the top honor for “science excellence” at the high school level. Each year, only one high school in the nation is the recipient of this prestigious recognition.

Intel states the “Illinois Mathematics and Science Academy was recognized for offering its students a rigorous, challenging and engaging program that teaches science skills and how to apply them to solve real-life problems, approach projects as a member of a team, and communicate succinctly on the subject.”

IMSA President Dr. Glenn W. “Max” McGee stated that it was a great honor to be recognized by a world-renowned innovator.

“Intel has an international reputation for excellence in innovation and creativity in science and technology,” Dr. McGee said. “This recognition is affirmation that we are living into our mission statement as we aspire to be ‘the world’s leading teaching and learning laboratory for imagination and inquiry,’ and that our dedicated staff and faculty set a world-class standard for ‘igniting and nurturing creative, ethical scientific minds that advance the human condition.’”

IMSA achieved this honor through a rigorous multiphase process that required a team effort. The first round was based on a comprehensive application process. During the second phase, Intel representatives spent a full day at IMSA to meet with IMSA staff members, faculty

members and students. Intel’s selection process took into consideration a wide array of dimensions, including:

- Professional development program(s)
- Leadership model
- Level of community involvement
- Level of collaboration/teamwork
- Capacity to scale and sustain
- Use of rich digital content
- Level of student achievement
- A variety of instructional strategies incorporating such areas as critical thinking skills, hands-on experiences and project-based learning.

Members of the Illinois House of Representatives issued House Resolution 0415 to recognize the honor. The Resolution was established to “congratulate the staff, students, and faculty at the Illinois Mathematics and Science Academy on this award and wish them well in all their future endeavors,” and to ensure that “a suitable copy of this resolution be presented to Max McGee, president of the Illinois Mathematics and Science Academy, as a symbol of our respect.”

Dr. McGee also noted that community involvement is an integral part of IMSA’s work.

“Our public and private supporters value our commitment and ability to serve under-resourced schools in Illinois,” he said. “As partners, we want to ensure that all children have opportunities to excel in mathematics and science and have access to rewarding careers that benefit society.”

As a 2009 *Intel Schools of Distinction* recipient, IMSA is awarded \$12,500 from the Intel Foundation and a package of “curriculum materials, professional development resources, hardware and software valued at more than \$100,000.” IMSA and five other award recipients will be honored in Washington D.C. this September. At that time, one of the six award recipients will be named “Star Innovator” and receive an additional grant and award package.



Photos:

1: State Representative Will Burns, one of the honored guests in attendance at the ribbon cutting of the new IMSA Chicago Field Office, addressed the crowd during the historical event at James R. Doolittle Jr. Elementary School on May 4, 2009.

2, 3, 5: Students from James R. Doolittle Jr. Elementary School attend a live *States of Matter: Does It Matter?* science demonstration by the IMSA Kids Institute conducted by IMSA students.

4: Illinois State Senator Donne Trotter was the featured speaker at the ceremonial ribbon cutting of the new Chicago Field Office of the Illinois Mathematics and Science Academy.

6: Chicago Alderman Toni Preckwinkle, a former educator, spoke about the importance of teaching during her remarks as an honored guest during the ribbon cutting ceremony of the new IMSA Chicago Field Office.

7: Local and state officials and educators attend the historical ribbon cutting of the new IMSA Chicago Field Office. They include (L to R): IMSA President Dr. Glenn W. "Max" McGee, State Representative Will Burns, Illinois State Senator Donne Trotter, IMSA student Kara Sims of Aurora, IMSA student David Burchell of Chicago, Chicago Alderman Toni Preckwinkle, CPS Instructional Officer Katherine Volk and IMSA Board of Trustees Chairman Steven T. Isoye.

Ceremonial Ribbon Cutting Celebrates Opening of Chicago Field Office

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The sights and sounds of celebration were heard on May 4, 2009 as IMSA proudly announced the opening of its new Chicago Field Office at James R. Doolittle, Jr. Elementary School in a unique partnership with Chicago Public Schools (CPS).

The event, hosted by IMSA President Dr. Glenn W. "Max" McGee, featured keynote speaker Illinois State Senator Donne Trotter, 17th District. Additional honored guests who delivered remarks included Illinois State Representative William Burns, 26th District; Chicago Alderwoman Toni Preckwinkle, 4th Ward; and CPS Instructional Officer Katherine Volk.

Through its new Chicago Field Office, IMSA joins CPS to deliver professional development in mathematics and science instruction that focuses on inquiry and discovery; provide after school, weekend, and summer mathematics and science programs for students; and address local needs by building and sustaining relationships with members of the local Chicago community and by coordinating mathematics and science programs with local organizations.

The Chicago Field Office is made possible through the visionary support of the Illinois Governor's Office, Illinois General Assembly, Illinois Board of Higher Education, City of Chicago, Chicago Public Schools and donors of the IMSA Fund for Advancement of Education, including the Polk Bros. Foundation, Tellabs Foundation and an anonymous donor.

The event also featured a live science demonstration by the IMSA Kids Institute® (KI), conducted by IMSA students for students at Doolittle School.

ALUMNICORNER

One function of the IAA is to formalize alumni relations with IMSA. That means, as president of the IAA, I occasionally have to dress at least semi-formally to attend IMSA functions and serve as a representative of the alumni community.

I certainly am not the only alumnus who helps represent the alumni community. During my past four years as IAA president, the number of alumni participating in Intercession has increased as more of us have time and interests to share with current students. Two alumni have been appointed to the IMSA Board of Trustees, and four alumni currently serve on the IMSA Fund Board of Directors. While I cannot take credit for their increasing influence at IMSA, it is notable how many alumni are finding ways to connect with IMSA and give a little back.

Most of the time, the IAA has been working to help the growing number of alumni reconnect with IMSA and one another in more informal settings (such as the annual class reunions). The summer when I was appointed as the IAA liaison to the IMSA Board of Trustees, there were only two reunions; this year, there will be four.

To meet these changing needs, the IAA has developed new ways to help alumni reconnect. Perhaps the most obvious examples are the 19 regional events held over the past three years, helping alumni to find each other in their new hometowns.

There has also been an increased effort to connect alumni with current students. As a junior, Lauraleigh Heffner '10 proposed and helped launch the Alumni Sibling program, which ran as a pilot this year. The program matches alumni with current students who share common interests to help provide ongoing



Members of the 2008-09 IAA Cabinet unite at the Hamster Ball. Back row (L to R): Kevin Colby '95, Matthew Knisley '01, Soochon Radee '93, Sam Berger '07, Jonathan Koch '08, Anthony Nuval '98. Front row (L to R): Amy Kinney '95, Scott Swanson '90, Ande Croll '97. Not pictured: Kevin McHugh '05, Ravi Sahota '00, Jeff Truitt '89.

IAARetreat

feedback to students in an advisory role. Many lessons were learned from this inaugural year, and those who participated support the continuation and expansion of the program in the upcoming school year.

The *College, Career, Choices* forums were events that brought alumni in selected career fields back to IMSA to share their experiences with students. In the two evening forums held this year on computer science and medicine, alumni answered questions and shared unique perspectives on their paths from IMSA to their professional fields. As with the Alumni Sibling program, we hope the number of forums will increase next year, connecting more students with alumni and providing alumni with an opportunity to visit IMSA to share what they have learned and accomplished post-IMSA.

The IAA is a strictly volunteer organization. While all alumni are IAA members, the strength of its programs and events is based on alumni participation. As I leave my formal role as president of the IAA, I know that I will return in less formal ways. In so doing, I hope to lead by example and continue to meet other alumni who also choose to return to IMSA to reach out and reconnect. So for anyone interested in taking a trip to IMSA at one of the many events where alumni volunteer, please know that I'll meet you at the Hamster Ball.

– Ande Croll '97

COMMUNITYNOTES

Derek Wolfram '89 has been appointed Deputy County Librarian for Community Libraries and Human Resources for the Santa Clara County (California) Library.

Karen Chesley '98 will graduate this fall from the University of Pennsylvania Law School, where she was a member of the Law Review and president of the Intellectual Property Group. While in school, Karen worked for Philadelphia Volunteer Lawyers for the Arts and served as a Legal Fellow for Congressman Steve Cohen (D-TN). Upon graduation, she will begin a federal judicial clerkship.

Contribute to Community Notes Online!

What's New in Your Life?

Let us and your fellow IMSA classmates/colleagues know about what you've been doing! Have you recently started a new job or been promoted? Are you involved in new and exciting community service projects or other activities? Have you recently been published, honored or elected? If so, please tell us about it at:

www3.imsa.edu/news/community-notes

FROM THE VICE PRESIDENT

Suzyn Price

IMSA Vice President for Advancement

How we recognize IMSA alumni has come up several times recently, from a Strategic Planning Team update session this January, to a Board of Trustees meeting. It is an issue always current and important for schools and colleges around the country, and IMSA is no exception.

IMSA considers students who have spent one semester here to be alumni. Those who completed program requirements are considered graduates, but we almost always use alumni as an all-inclusive term. We are enormously proud of our alumni (whether graduated from IMSA or not), and, in many cases, we see that those who do not graduate from IMSA still list the Academy in their resumes and profiles. Alumni are proud of their participation at IMSA and feel connected to their fellow alumni and this institution. This is a point of distinction for us and one in which we take great honor.

We recognize alumni regularly for their work on several pages of our Web site (<https://www3.imsa.edu/alumni/about>). We also recognize alumni in the *IMSA360* magazine (see Alumni-in-Action on page 7), through e-Newsbriefs (sent to alumni, staff, parents, friends and others), at Homecoming, with the Board of Trustees Alumni Awards (see new recipients on pages 14-15), in testimony to the General Assembly and, as appropriate, press releases to Illinois newspapers.

One of our strategic objectives is to recognize how alumni significantly improve the way people live, an outgrowth of our mission statement, “to ignite and nurture creative, ethical scientific minds that advance the human condition.” This is a particularly complex idea that has engendered powerful and important discussion among alumni, faculty, staff, the Board of Trustees and the Strategic Planning Team.

The Office of Advancement has been part of that conversation, of course. We are responsible for the institutional process of recognizing our alumni, although everyone at IMSA supports



recognition in big and small ways. We recognize especially accomplishments in the fields of science, technology, engineering and mathematics. We are a publicly funded institution with the goal to nurture talent in these areas. However, many alumni are regularly forging innovations in finance, education, business, international affairs, politics, the arts—in every field they are using their extraordinary talents to make a difference in our world—and we are proud to recognize these contributions.

Making a difference in the world can happen in huge, internationally impactful ways, or in personal, profound ways between two people (harder to recognize publicly but no less significant). It is our alumni's ability to conduct their lives as rigorous, principled thinkers that makes the most consistent and important difference in our world.

IMSA alumni, please keep sharing with us your experiences, accomplishments, ideas and concerns. We are proud of you and want you to be proud of IMSA.

– Suzyn Price
Vice President for Advancement

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The internationally recognized Illinois Mathematics and Science Academy® (IMSA) develops creative, ethical leaders in science, technology, engineering and mathematics. As a teaching and learning laboratory created by the State of Illinois, IMSA enrolls academically talented Illinois students (grades 10-12) in its advanced, residential college preparatory program, and it serves thousands of educators and students in Illinois and beyond through innovative instructional programs that foster imagination and inquiry. IMSA also advances education through research, groundbreaking ventures and strategic partnerships. (www.imsa.edu)



Photo courtesy of IMSA



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SAVE THE DATE for the Following IMSA Events!

Homecoming

September 26, 2009

Board of Trustees
Alumni Awards Ceremony

September 26, 2009