

# IMSA 360

SPRING 2011

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

## **Coming Full Circle:**

The Work of Enrollment and Academic  
Services Is a Community-Wide Endeavor



## FROM THE PRESIDENT

Dr. Glenn W. "Max" McGee  
IMSA President

When I speak to parents, students, educators and legislators about the concept of "career readiness," I emphasize that IMSA is preparing learners for careers that do not yet exist. Through learning experiences based on imagination and inquiry, IMSA students, whether enrolled in our residential program or in our statewide enrichment programs, learn to pursue compelling questions of interest, work collaboratively, conduct investigations and communicate findings. In the words of our Standards of Significant Learning, students learn to "think about thinking," "extend and integrate thought," and "construct questions which further understanding, forge connections and deepen meaning." In short, they learn how to learn, enabling them to tackle present and future challenges that impact our local and global communities.

This issue of *IMSA360* features how the work of Enrollment and Academic Services prepares students to imagine, investigate, serve and lead. Recruitment of our state's top talent is just one important facet of the work conducted by members of our dedicated team of specialists. They ensure that incoming students have rich opportunities to explore their unique passions, pursue new interests and become ethical leaders. Through guidance and an array of supportive programs and services, they help students to develop self-reliance, resilience, confidence, curiosity and resourcefulness – attributes that will serve them well in a world where rapid changes in economies, technologies and careers have become the norm. They also guide students through the increasingly complex and competitive college application process. This includes broadening students' horizons by introducing them to unique college options that match their passions, goals and aspirations. Graduation does not mark the end of students' connections to Enrollment and Academic Services and to IMSA. You will learn in this issue how alumni, having been deeply impacted by their IMSA experiences, are compelled to recruit and nurture the next generation of IMSA students.

This issue also features several exciting announcements. The IMSA Fund for Advancement of Education has received a \$145,000 grant from the Tellabs Foundation to develop and expand **CoolHub.IMSA** ([coolhub.imsa.edu](http://coolhub.imsa.edu)), a one-of-a-kind "no walls" online collaborative platform for innovation in STEM teaching and learning. The network has connected our students with peers and experts across Illinois, throughout the country and even with student researchers in Beijing as they collaborate on sustainable energy research. We are also pleased to announce the opening of our Field Office in Rock Island. We will serve the Rock Island region by delivering professional development programs to educators and enrichment programs to students and by coordinating programs with local organizations.

The name of this magazine, *IMSA360*, represents our full circle of constituents and full array of services to students, teachers and communities. We hope you find that this issue vividly demonstrates that when working together as a collective community, we have the vision, power and resources to make a strong and enduring impact on education in Illinois and beyond.

# IMSA360

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**IMSA360:** Recipient of the National School Public Relations Association Award of Excellence, the Illinois School Public Relations Association Award of Excellence, the American Graphic Design Award and the Hermes Creative Award.

## NEWSHEADLINES

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

# IMSA Receives \$145,000 Grant From Tellabs Foundation for CoolHub.IMSA Expansion

**CoolHub.IMSA**  
Collaborative Networks to Fast Forward Innovation in STEM Teaching and Learning



The IMSA Fund for Advancement of Education ([www.imsa.edu/giving](http://www.imsa.edu/giving)) has received a \$145,000 grant from the Tellabs Foundation to develop and expand **CoolHub.IMSA** ([coolhub.imsa.edu](http://coolhub.imsa.edu)), a one-of-a-kind “no walls” online collaborative platform for innovation in STEM teaching and learning. This marks Tellabs’ second grant to CoolHub.IMSA. In 2009, the foundation gave \$60,000 to launch this initiative. CoolHub is an online collaborative platform that enables learners of all ages to explore questions, develop ideas and work together on innovative projects of mutual interest. Collaboration takes place online and face to face supported by a robust virtual network that includes video conferencing, online forums, wikis, blogs and more. A broad range of projects engages teachers, students, scientists and others in finding innovative solutions to present day challenges such as improving water quality and producing alternate sources of energy. The grant will enable IMSA to add new features to CoolHub’s platform, enhance support and service by helping members set up new projects, expand recruitment of members, spearhead innovation through project minigrants, host a CoolHub Innovation Conference and conduct formal evaluations of CoolHub’s effectiveness.

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### Grants to IMSA Fund for Advancement of Education Expand Opportunities for Illinois Teachers and Students

A \$30,000 grant from JP Morgan Chase Foundation supports the Science + Math = Teaching for Success program for teachers in Area 15 of Chicago Public Schools. They will receive instruction, mentoring and ongoing support to integrate science and math courses with other courses and apply inquiry-based instruction in their classrooms.

The Pentair Foundation awarded a \$10,000 grant to support IMSA Robotics and IMSA Kids Institute® programs. The grant provides funding for tools, materials and travel

costs to enable IMSA Robotics students to participate in regional and national competitions. The grant also provides scholarships for 45 Aurora students to attend IMSA weekend and summer programs.

Northrop Grumman Foundation granted \$5,000 to support IMSA’s collaborative out-of-school programs with Chicago Public Schools and After School Matters. The programs are designed to generate interest in science, technology, engineering, mathematics and related careers.

*Dr. Michael Oberhaus, superintendent of Rock Island/Milan School District #41, Dr. Ruth Ann Tobey-Brown, principal of Rock Island Center for Math and Science, and Dennis Pauley, mayor of Rock Island, join Dr. Glenn W. "Max" McGee, president of IMSA, in celebrating the opening of the IMSA Rock Island Region Field Office.*



## IMSA Receives Highest Ranking in World Contest

One IMSA team received the highest ranking possible in the 13<sup>th</sup> annual international High School Mathematical Contest in Modeling (HiMCM), placing IMSA among the top seven schools in the world in this

year's competition. The IMSA team of Aditya Karan, Nilesh Kavthekar, Abhinav Reddy and Nishith Reddy received the rank of "National Outstanding." Only seven teams out of 295 that competed worldwide received this ranking.

The High School Mathematical Contest in Modeling is a 36-hour contest where each team is expected to solve a mathematical modeling problem. Each team then prepares and submits a paper discussing their solution to the problem.

IMSA's "National Outstanding" team had to analyze crime-related data in a city and develop a mathematical model to reduce violence. Students had to examine data including homicides, assaults, census data, unemployment rates, parole violations, dropout rates, graduation rates and incidents of violence. Students then had to prepare a news release for the mayor, outlining the proposals that recommend a campaign strategy to curb the violence.

## IMSA Summer Programs Accepting Registrations

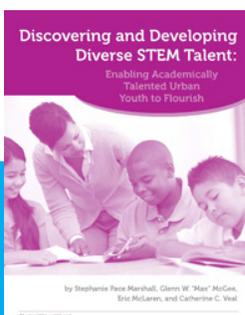
During summer 2011, IMSA is offering a range of day and residential programs in mathematics, science and technology for students who are entering grades 3–10. Many favorites are returning such as Summer Sleuths, Science Explorers and Energy@IMSA. To learn more about these programs which will be held on IMSA's Aurora campus and in Chicago, visit IMSA's homepage at [www.imsa.edu](http://www.imsa.edu), contact [summerprograms@imsa.edu](mailto:summerprograms@imsa.edu) or call 630-907-5987.

## Ceremonial Ribbon Cutting Celebrates Opening of Rock Island Region Field Office

The Ceremonial Ribbon Cutting of IMSA's new Rock Island Region Field Office located at the Rock Island Center for Math and Science featured Rock Island Mayor Dennis Pauley and IMSA President Dr. Glenn W. "Max" McGee. Other officials in attendance on February 10, 2011 included Dr. Ruth Ann Tobey-Brown, principal of Rock Island Center for Math and Science and Dr. Michael Oberhaus, superintendent of Rock Island/Milan School District #41.

Through its new Rock Island Region Field Office, IMSA joins forces with educators from the Rock Island Region of Illinois 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 children; and address local needs by building relationships with local leaders and coordinating mathematics and science programs with local organizations. IMSA also has Field Offices in Chicago and in the Metro East Region.





## National Education Journal Features Article by IMSA Leaders

The winter 2011 edition of the journal *Gifted Child Today* includes the article “Discovering and Developing Diverse STEM Talent: Enabling Academically Talented Urban Youth to Flourish” featuring case stories of Miguel Garcia '11, Terez Ivy '92 and Lynn Sosa-Bergeron '94. The article was written by Founding President and President Emerita Dr. Stephanie Pace Marshall, President Dr. Glenn W. “Max” McGee, Principal and Vice President for Academic Programs Dr. Eric McLaren and Vice President for Strategy and Innovation Catherine Veal.

The article illuminates “some of the (a) challenges and opportunities inherent in igniting STEM talent in urban youth and ensuring their success; (b) principles for designing and creating learning experiences and environments that ignite and nurture the development of ‘creative, ethical scientific minds’ (IMSA, 2009); and (c) institutional lessons that have become clear to us after more than two decades of developing diverse STEM talent.” The complete article can be accessed at [http://digitalcommons.imsa.edu/pres\\_pr/2/](http://digitalcommons.imsa.edu/pres_pr/2/).

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## Students Excel in National and Global Venues

Adam Kalinich and Peter Lu qualified as semifinalists in the U.S. Physics Team Competition. The mission of the U.S. Physics Team Program is to promote and demonstrate academic excellence through preparation for and participation in the International Physics Olympiad.

Five IMSA seniors are among only 13 from Illinois and 300 in the nation who were named Intel Science Talent Search (Intel STS) Semifinalists in the 70<sup>th</sup> Annual Intel Science Talent Search. Often considered the “Junior Nobel Prize,” the Intel STS recognized the most accomplished students and their schools for excellence in science and mathematics. IMSA is one of only seven

schools in Illinois to have Intel semifinalists this year and the only Illinois school to have semifinalists in each of the past five years. IMSA's semifinalists are Victor Duan, Derek Hardin, Corinne Madsen, Daniel Pak and Nicole Runkle. Learn more about their work by visiting the News and Events section of IMSA's website [www.imsa.edu](http://www.imsa.edu).

Vignesh Kumar qualified to participate in the National Brain Bee competition at the University of Maryland, Baltimore. The competition is designed “to motivate students to learn about the brain, to capture their imaginations, and to inspire them to pursue careers in biomedical brain research.”

## Serving Our Country



**Kendra Smith '10** (pictured left) and **Judy Hooymans '10** were two of the 290 sworn in at the U.S. Coast Guard Academy on June 28, 2010. They are both majoring in marine science. Judy is a member of the women's soccer team and Kendra is a member of both the Glee Club and Fairwinds (an eight women a cappella vocal group).

## Outstanding Patient Care



**Alexa Bisinger '00** is the recipient of the American College of Emergency Physicians (ACEP) 2011 Medical Student Professionalism and Service Award. The award recognizes students who excel in compassionate care of patients, professional behavior, and service to the community and/or

specialty. The ACEP is a national medical specialty society representing emergency medicine with more than 25,000 members. Bisinger was one of only 18 medical students throughout the country who were honored with the award in 2011 after being selected by division faculty and residents at Stanford University School of Medicine.

## International Entrepreneur



**Jalila Bouchareb '04** launched Amal Oils, a new business that supports an environmental cause and gives back to the women of Morocco. Amal Oils sells 100% Organic Argan Oil, a pure, dry, non-greasy oil that can be used on skin, hair and nails. The

business idea was conceived while she was traveling in her home country of Morocco in search of a way to give back to the Berber women and help improve their lives. "In addition to supporting the women cooperatives in Morocco, Amal Oils also supports the argan tree reforestation project to plant new trees, provide education about sustainable farming and fund argan research," she said. For more information, visit <http://www.imsaalumni.org/bouchareb>.

## COMMUNITYNOTES

**Theo O'Neal '89** and **Victoria Bryan O'Neal '96** announced the arrival of Elliott "Teddy" Roscoe O'Neal on December 13, 2011. Teddy was welcomed home by his big sister Kitty (Katherine Astrid, 6/17/2007.) They currently live in Austin, TX, where Victoria is in district math leadership for Austin Independent School District and Theo works for the Texas Department of Public Safety.

**Grace (Lee) Simrall '97** is part of a team launching a record-breaking attempt for a complete TransAtlantic flight via an autonomous balloon (<http://whitestarballoon.com>). With a custom 30-foot tall plastic helium envelope and 12 lbs. of scientific payload, the balloon must be able to maintain its float in the jet stream for 72 hours. According to Simrall, "This is not another 'near space' balloon that snaps pretty pictures; it's monumental and interdisciplinary."

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](http://www3.imsa.edu/news/community-notes).

## IMSA Announces 2011 Alumni Award Winners

Four extraordinary IMSA alumni are the recipients of the Fifth Annual IMSA Board of Trustees Alumni Awards. They will be recognized at the Alumni Awards Ceremony and Alumni Volunteer Recognition Dinner on Friday, July 22, 2011.

These awards are the highest honors given to alumni in recognition of their accomplishments and contributions to their professions, to IMSA and to the citizens of Illinois, our nation and the world.

To see complete profiles of the 2011 winners or to nominate 2012 candidates visit <https://www3.imsa.edu/alumni/awards/nominations>.

**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. Ronjon Paul '89** is a leader in the field of reconstructive cervical and lumbar spinal surgery. As a spinal surgeon and medical director for The Spine Center of DuPage Medical Group, Dr. Paul has treated and taught neurosurgeons and spinal surgeons from around the world. He is an award-winning researcher in genetic tissue engineering for degenerative disc disease and other spinal disorders, and his findings have been published in major medical journals. He has been an invited speaker at many regional, national and international medical conferences reaching international audiences. Dr. Paul leads The Spine Center, which according to Paul, "is interdisciplinary in that it uses the talents of both surgical and non-surgical physicians (who work as a team) to treat patients with spinal ailments. I am very proud of how it has evolved and its unique nature. I believe it is the only one of its kind in the area – maybe Illinois." Dr. Paul received his M.D. from The University of Chicago – Pritzker School of Medicine.



**Dr. Matthew Pritchard '93** is a geophysicist who measures changes in the shape of the earth and develops models of the myriad processes that cause these changes including: earthquakes, volcanoes, groundwater, landslides and glaciers. He is an associate professor in Earth and Atmospheric Science at Cornell University and a faculty fellow at the Atkinson Center for a Sustainable Future. Through research and teaching, Dr. Pritchard strives to answer some of today's pressing societal questions about natural hazards and the degree to which humans are influencing glaciers and groundwater resources. His work has been published in many science journals, and he was recently awarded the National Science Foundation's CAREER Award and also is a recipient of the National Aeronautics and Space Administration New Investigator Program Award. Dr. Pritchard is a graduate of The University of Chicago and California Institute of Technology.



**Clara Shih '00** is a trailblazer in many rights, combining her keen knowledge and entrepreneurship savvy to help influence, improve and innovate business technology applications nationwide. Shih was named one of the Most Influential Women in Technology 2010 (The Entrepreneurs group) by *Fast Company* magazine and authored *The Facebook Era: Tapping Online Social Networks to Build Better Products, Reach New Audiences, and Sell More Stuff* which is now used as a textbook at the Harvard Business School. In addition, she just published her second edition of *The Facebook Era*. Shih is also the creator of Faceconnector (formerly Faceforce), the first business application on Facebook, and was the product line director for AppExchange, described by *Forbes* magazine as the "iTunes of business software" and one of the top innovations of 2007. She is now the founder of Hearsay Corporation, a social media marketing software company based in San Francisco. She is a graduate of the University of Illinois-Chicago, Stanford University and the University of Oxford.



**Dr. Frank Wood '92** is an accomplished entrepreneur, computer scientist, statistician and educator. Dr. Wood is an assistant professor of statistics at Columbia University and an award-winning researcher in the field of statistical machine learning. He conducts research at the intersection of neuroscience, computer science, statistics and cognitive psychology with a current focus on models of natural language and algorithms for lossless compression that shed light on the path toward artificial intelligence. He has founded two companies, Betacular, Ltd., a London-based predictive markets software company and ToFish!, Inc., a content-based image retrieval company which was acquired by AOL. Dr. Wood is a graduate of Cornell University and Brown University.

## Hamster Ball Enthusiast



It is easy to overlook the extensive and overlapping networks required to recruit, build and nurture each class at IMSA. Statewide Informational Meetings, Preview Day and the Admissions Review Committee attract students, while the Academic and Residential Life Programs foster their

development, and the IAA and the Advancement Office strive to meet alumni needs after graduation.

I think it would be beneficial for us all to reflect on the moment we knew we wanted to apply to IMSA. Although vaguely aware of IMSA, I never considered applying until I received an application and letter from Jon Neidy, a former resident counselor who left IMSA to manage the Prairie Scholars Program at MacMurray College in Jacksonville. His letter concluded with "Good luck and good writing." His excitement intrigued me enough to take the SAT, visit the campus and submit my application within the three weeks remaining before the deadline.

Some of us may have always wanted to apply, but for others, an enormous effort by countless individuals was required to get us into our residential hall on move-in day. There are many ways to return the favor and get involved formally with recruitment and admissions, but imagine if those of us with continued connections to Illinois resolved to send an unexpected letter each year to a promising young student!

In recent years, the IAA and IMSA have renewed our efforts to recognize alumni volunteerism in all its forms. Recognition may not be a driving force behind your involvement, but it can be refreshing to reunite and reflect upon what we have accomplished together. I am looking forward to Alumni Weekend, and I invite you to join us July 22–24. In addition to reunions, we will have a number of campus events and the Board of Trustees Alumni Awards and Alumni Volunteers Recognition Dinner. To learn more about Alumni Weekend and how to stay involved with IMSA, visit the new alumni website at [www.imsaalumni.org](http://www.imsaalumni.org)!

*Matthew Knisley '01  
IMSA Alumni Association President  
president@imsaalumni.org*



# Enrollment and Academic Services: A Community-Wide Endeavor



**In this interview with Director of Enrollment and Academic Services Barbara Miller, we learn how student success depends on a full circle of dedicated and inspiring community members.**

**IMSA360:** What is the major goal of Enrollment and Academic Services?

**Miller:** Our major goal is to attract, enroll, retain and graduate a class of well-qualified students from across the state who are passionate about mathematics and science, collaborate with others, value diversity and want to make a difference.

We create awareness about IMSA by facilitating an array of marketing initiatives, hosting meetings in cities and towns across Illinois, and fostering continuous communication with our prospective students. We also design and deliver pre-enrollment programs.

We assist students in achieving their academic goals by

challenging and supporting each individual student as he/she develops a unique portfolio of learning opportunities during three years at IMSA. We provide guidance and support through the college selection process.

Finally, we foster a culture where the work of Enrollment and Academic Services is a community-wide endeavor requiring the support, cooperation and participation of faculty, staff, students and parents.

**IMSA360:** What are the challenges facing incoming sophomores?

**Miller:** Adjusting to a new learning, living and social environment is essential to the achievement of our students.

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## Model Alumnus Brings Promise and Hope to Talented Youth

As a procurement financial analyst at Boeing Company, a pastor at a church in East St. Louis, and a basketball coach at the largest middle

school in East St. Louis, it is easy to see why Dwan Prude '97 is a role model for youth.

His passion, commitment and perspective make him invaluable in IMSA's efforts to attract and recruit underrepresented and underserved students who have talent and interest in mathematics and science.

"In 2009, an opportunity to work with ATM (Alumni Tutoring & Mentoring) through the IMSA PROMISE Program allowed me to actively recruit, tutor and mentor 10 students (eight 9<sup>th</sup> graders and two 8<sup>th</sup> graders) for six to eight weeks," Prude said. "Three of these students were accepted to IMSA," he proudly states.

Prude was able to share his IMSA experience with youth from the East St. Louis area in very personal ways, drawing on his own memories as a way to educate them about IMSA.

"During our ATM sessions, I was able to produce my three IMSA binders that I had put together while at IMSA from 1995–1997," Prude said. "I was able to show the students real photos, report cards, college applications, sports awards, letters to and from friends during my IMSA summers, pictures from Intersession, and my original IMSA application and SAT scores from my 9<sup>th</sup> grade year," he added.

Prude is also the product of IMSA enrichment programs, which he says gave him the confidence and skills he needed to succeed.

"During my 7<sup>th</sup> and 8<sup>th</sup> grade summers, I recall attending the IMSA Summer Challenge program," he said. "We were actively engaged in IMSA life for a week with about 100 other

gifted students throughout the state of Illinois. We actually lived in the residence halls, participated in Problem-Based Learning exercises, and were taught by real IMSA teachers."

"When it was time to apply to IMSA, I was more confident about getting accepted and less hesitant about leaving home. I also knew what to expect in terms of the challenging academic expectations and rigorous course work."

Prude's enthusiasm for IMSA is infectious, which makes him such an effective tutor and mentor to prospective students and an invaluable asset to IMSA.

"Alumni involvement is the priceless marketing tool that reaps huge dividends in the long-run for IMSA. I always find time to volunteer because attending IMSA helped changed my life and mold me into the person that I am today."





*"We foster a culture where the work of Enrollment and Academic Services is a community-wide endeavor," said Director of Enrollment and Academic Services Barbara Miller (pictured second from right).*

Each student has different adjustment concerns. Primarily, sophomore concerns center around homesickness, learning how to "learn IMSA," managing time, and being able to advocate for oneself which includes talking with teachers and asking questions. Sophomores also seem to struggle with knowing how and what to study, as many have not had the challenges at their home schools that they experience at IMSA. Finding one's direction and place in a new environment can be intimidating.

Through a variety of support measures, programs and faculty/staff strategies, we work to assist sophomores in their transition to IMSA. From placement testing, to orientation, to Excel (see page 13), to Navigation (semester-long transition program), to sophomore study sessions, to individual appointments, members of the Enrollment and Academic Services team reach out to our students and their parents to enable a smooth transition to the Academy and all that it has to offer.

**IMSA360:** What indicators help you to determine if a student is thriving at IMSA?

**Miller:** I use a number of indicators to determine if a student is thriving. Is the student actively engaged in academic work and in the residential environment? Is the student a contributing member of the community by attending programs and activities and by participating in clubs, athletics or organizations? Has the student made connections with adults at the Academy including teachers, staff and resident counselors, and does the student work well with his/her peers through collaboration on academic work and social activities? Ultimately, is the student content with his/her decisions and level of engagement in IMSA's academic and residential community?

*Continued on next page*



## Alumni Bring Rich Perspectives to IMSA Admissions

Julia Colby '96 knows that her unique perspective gives voice to IMSA applicants who might otherwise not be heard.

As a parent and an alumna from a rural Illinois town, she brings a unique perspective to the IMSA Admissions Review Committee.

"Coming from a very small school district in rural northwest Illinois, I feel I can also be an advocate for the students who need and are desperate for an IMSA experience to help them realize a higher level of their potential," Colby said.

In addition to serving on the Admissions Review Committee, Colby has also served as a contact for potential applicants and their parents.

"The decision to send a 15 or 14 year-old student to IMSA is a difficult one," Colby said. "As a mother, I understand the internal and external pressures and questions a parent faces when his/her child desires to apply to and attend IMSA. As an alumna, I offer insight about the support structure, the challenges and the qualities needed for success."

In addition to work with admissions efforts at IMSA, Colby is also active with the IMSA Alumni Association, Intersession and College Day.

IMSA is fortunate to have alumni with their unique perspectives as part of the admissions process.



*Julia Colby '96 and Kevin Colby '95 are both active alumni volunteers at IMSA.*

Continued from page 11

**IMSA360:** How does Enrollment and Academic Services help students to identify and achieve their personal aspirations?

**Miller:** Enrollment and Academic Services develops relationships with students and families beginning with our pre-enrollment programs, continuing to our admissions events and admission process, through selection, enrollment, and on through the Academy to graduation. The collaborative and team effort of our Offices of Admissions, Multicultural Recruitment Initiatives, Academic Support, College and Academic Counseling and the Registrar creates, implements and sustains the net of support and guidance throughout a student's time at IMSA. Our work is to know our students collectively and individually. We strive to know their strengths, their challenges and their short and long-term aspirations and goals. The staff members who work in these areas play important roles in the lives of our students as they develop intellectually, emotionally and socially during their three years at IMSA.

Being accepted to attend IMSA is an aspiration for many students. For some it has been a goal or dream since elementary school. All members of the Enrollment and Academic Services team serve as mentors, coaches, cheerleaders, advisors and advocates for our students. All touch the lives of our students by inspiring them to do their best and get involved in campus life and by listening to their dreams and helping them meet their aspirations.

Through their work, they assist students with developing their communication skills, their self confidence and understanding the responsibilities of being an IMSA student.

**IMSA360:** What are your top priorities for the next academic year?

**Miller:** Currently, we are in the process of enrolling the Class of 2014. A primary goal is to enroll class members who will find academic success at IMSA and beyond, make a difference in the community and strive to be passionate, creative, ethical decision makers as they advance the human condition.

We need to use technological advances to enhance our reach to Illinois citizens. We will continue to provide and expand opportunities for prospective students and parents to experience IMSA through web-based meetings, tours, blogging and communication.

Enrollment practices, programs and policies related to the matriculation, attrition and retention of students are based on data-driven information. We need to be current with technological tools that will help us gather and use information to address the needs of our students and the Academy.

We need to continue to work with teachers and resident counselors as they have a crucial role in the retention and graduation of our students.

IMSA360

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## Admissions: IMSA's Ambassadors to the Next Generation



(L to R) IMSA Office of Admissions staff Amy Conyers, Chevonne Totten-Garner, Phyllis Chesnut, Adrienne Coleman and Quintin Backstrom.

With their collective talents and decades of experience behind them, members of the IMSA Office of Admissions are well poised to position IMSA's value to the next generation of leaders.

Fortunately, the work of Quintin Backstrom, Admissions counselor; Phyllis Chesnut, secretary for Enrollment and Academic Services; Adrienne Coleman, coordinator of Multicultural Recruitment Initiatives; Amy Conyers, coordinator of Admissions; and Chevonne Totten-Garner, Admissions counselor is "never done."

This is because there is always a need for talented youth to reach their full potential so they can one day impact medical breakthroughs, new technologies and other innovations that advance the human condition.

### Trends in Admissions Go Green

"The biggest recruitment trend we have experienced overall would be the use of

electronic technologies/communication – period," said Conyers. "IMSA's first fully online application – student essays, short answers and evaluations – came last year for the Class of 2013. In our first year of online applicants, only 100 of 750 applications were submitted in paper format," she added.

The IMSA Office of Admissions continues to improve its recruitment strategies, most recently with the addition of an online checklist so families could have anytime, anywhere access to the status of their admissions materials. IMSA's official Facebook page and admissions e-briefs allow prospective families to follow IMSA news and current events online. In addition, Admissions staff is working with more than 175 Student Ambassadors to produce online student videos and this year initiated a pilot I AM IMSA student blog.

"Trying to integrate the personal IMSA 'student' story with technology to reach this generation continues to be a goal for

**IMSA360:** What do you find most rewarding in your role?

**Miller:** No two days are the same, and no two students are alike.

I love the challenge of working with students, parents, teachers and staff to identify the best strategies and interventions that help students make good decisions and choices, sustain their natural curiosity for learning, and develop habits that will support them through college and perhaps their lifetime.

The staff at IMSA constantly astonish me as they think deeply, are actively engaged in their work and value education. Given their many demands, they still make time to assist others, listen to concerns, share their thoughts and ideas, and volunteer to assist with the many admissions, enrollment and academic services events and programs, often held during evenings and weekends. Parents and alumni also generously give their time.



*IMSA Preview Days, held twice a year, are open houses that have served thousands of prospective students and their parents.*

I love being part of the full cycle of Enrollment and Academic Services, meeting prospective students and parents at Preview Day, welcoming them at registration, watching the students mature during their IMSA experience and celebrating their future as they walk across the stage at commencement.

## of Leaders

our team," Conyers said. "The 2011 prospective student and their parents are savvy academic 'shoppers' and seek both factual program information and the personal connection – and they want it in real-time."

To better reach IMSA constituents, next year the Admissions Office plans to pilot the first online informational meeting to allow for greater reach across the state.

### Finding and Recruiting Talent

The Admissions team focuses most of its recruitment efforts on Illinois students in grades 6–9 who demonstrate a high interest and ability in mathematics, science and/or technology. Building a relationship with students and their families during the early middle school years is important for a number of reasons.

"Enrichment such as PROMISE (IMSA pre-admission programs) is very important as academic performance in early grades can impact students' prospects for IMSA admission," Coleman said.

"Making these early connections is even more critical for our underrepresented populations – African American and Latino students underrepresented in STEM programming as a whole, and students from more urban or rural areas of the state where STEM programming may not be as available," Coleman added. "Therefore, offering programs in earlier grades is a priority," she said.

### Demands for Real-World IMSA Experience

Three years ago, the Admissions Office began a pilot "Shadowing" program pairing IMSA Student Ambassadors with prospective students. The program has met with overwhelming success as students desire a real-world residential and academic experience to get a taste for IMSA life.

Likewise, parents also want to see IMSA firsthand and there has been a demand for more on-campus programming. "We fill our smaller scale, reservations-only campus visitation opportunities in sometimes a matter of hours and

have had record breaking – over 1,200 guests – numbers on a single Preview Day (open house) alone for the last two years," Conyers said.

In addition, programs such as Summer@IMSA, IMSA FUSION and Project School Visit allow prospective students to not only "see" IMSA, but to actively engage in the IMSA learning environment through residential summer camps, day camps and after school enrichment programs.

To learn more about IMSA programs for Illinois students, visit: [www.imsa.edu/admissions](http://www.imsa.edu/admissions) and [www.imsa.edu/programs](http://www.imsa.edu/programs).



**W**hen it comes to the topic of college admissions, there is no shortage of articles or opinions as to why the process continues to become more competitive every year for students.

The *Newsweek* article “Getting in Gets Harder” states that children of baby boomers are causing a swell of college admissions applications, making the process “more competitive than ever.” One college noted received 13,000 applications for 3,100 spaces and another 4,000 applications for 455 seats.

While IMSA students are not immune from these challenges, the College and Academic Counseling Office has a long tradition of success – helping students and their parents navigate their way through the college application process to select the best fit for them.

# Finding the Best College Fit



(L to R) IMSA College and Academic Counseling staff Roberto Suarez, Suzanne Speulda, Karen Gholson, Diane Stegmeyer, Bart Gregersen and Julia Husen.

## **The Road to College Admission**

The mission of the College and Academic Counseling (CAC) Office at IMSA is to match each student’s academic achievement, personal interests and family financial resources with the best college fit. The CAC office also provides ongoing academic support throughout a student’s IMSA career.

The CAC staff begins working with students as sophomores, by meeting with them once a month in October, November and December. At that time, they discuss IMSA academic and residential expectations and give them an overview of the CAC roles in students’ lives during their IMSA career.

## When It Comes to Academic Support, IMSA Is Rich in Resources

### Engage the Family

"At the December meeting, we also register sophomores on Naviance, a comprehensive college and career planning tool for students and families," said Coordinator of College and Academic Counseling Julia Husen. "It has numerous features that allow us to assist students in career planning and college selection," she added.

Naviance was introduced for the first time this year and includes the following information:

- Student and parent access to their own space with student's personal records, test history and completed course history.
- Access to a display of past IMSA acceptance statistics (in forms of "Scattergrams" and "Acceptance History") for the past three years. This information enables students to predict their admissions success using past IMSA admissions statistics.
- An extensive database of summer programs and summer schools, called "Enrichment Programs."
- A built-in email allowing CAC staff to communicate with students and parents simultaneously, thus keeping families abreast of the CAC work.
- The ability for CAC staff to track documents mailed to colleges for each student. Students and parents also can always see their requests for college documents (transcripts, CAC letter of recommendation, etc.) and whether or not the materials were mailed. The transparency of the work allows students and parents to hold the CAC office accountable.

In January, CAC staff coordinate the course selection process. This includes, among other things, coordinating minifairs of elective courses and communicating IMSA expectations and logistics to parents and students about the course selection process.

"This year we also added an additional feature to the course selection process," she said. "We worked with the Academic Committee of the Student Council and offered an Electives Shadowing Program, where sophomores (and juniors) were invited to attend elective classes in order to make more informed decisions about their next year's schedule."

*Continued on next page*



Whether it is issues with time management, organization, study habits or simply learning how to ask for help, IMSA provides numerous resources to help students develop successful skills that will last a lifetime.

IMSA Learning Specialist and Coordinator of Academic Support Paula Altekruise says no matter what issue arises during their IMSA experience, there are numerous proven and effective support strategies to help students overcome the challenges they may face.

"They may be unhappy with a poor test grade, feel stressed by the number of things they need to get done, or just want more time to sleep or play the flute! Students may see me weekly, or drop in for ideas on a specific issue. I'm available to parents with questions or concerns about how their students are doing," Altekruise said. "Teachers or counselors refer students to me and I invite them to brainstorm effective approaches."

At IMSA, students must rely on each other to be fully successful in their classes as collaboration is key.

"The IMSA curriculum is designed in a way that no student can excel without relying on the fine minds around them. Discussing concepts with others deepens their understanding."

In addition, Altekruise says it may take different approaches to be successful in different disciplines.

"For example, learning math in our Mathematical Investigations curriculum requires a different approach than a text book-based course, and there isn't as much practice and drill. Math is learned more by doing, checking with others and asking than by listening to a teacher explain," she said.

In addition to working with students, teachers and parents, Altekruise also works with Enrollment and Academic Services staff, counselors, and Residential Life staff to provide programs and resources to support academic success during the school year.

### Examples of IMSA Academic Support Program

- **The Writing Center:** This resource provides daily tutoring help with writing, from planning to final revisions.
- **The Excel Program:** This is a three-week summer pre-enrollment program serving accepted sophomores who may not have had key academic opportunities in their pursuit of educational excellence.
- **Disabilities Services:** Students learn strategies to address their specific learning style. An individualized education plan may be developed under the disabilities policy to provide services and accommodations to address a student's specific learning needs.
- **Peer Tutors:** There are 10–20 tutors in each residence hall to help with math, science or a world language, as well as three to six Writing Center tutors.
- **Evening Study in the Information Resource Center (IRC):** IMSA enables students to do research or study away from their room from 7–9 p.m. Studying in the IRC is required for some students and tutors are available.

"IMSA students learn not to give up when they are challenged – persistent effort and taking advantage of available resources lead to success at IMSA, and beyond."



Continued from page 15

### Gearing Up Junior Year

“We begin our college exploration work with juniors in October when we register them to take a mandatory PSAT,” Husen said. The test serves as preparation for the SAT that juniors take during the second semester for college admissions. In addition, the PSAT is important because it allows students to be selected as National Merit or National Achievement Semifinalists in the fall of their senior year, with the potential for college scholarships.

In October, CAC staff members host two important events for IMSA juniors. In partnership with Princeton Review (a testing agency), IMSA administers a free Diagnostics Test to juniors. “The Diagnostics Test is an SAT/ACT combination test that allows students to take both tests to see which one is better suited to reflect their testing skills,” she said.

In addition, the CAC office partners with the IMSA English team to offer evening tutorials in critical reading as preparation for the critical reading section on the PSAT.

### Beginning the Comprehensive College Selection Process

At the beginning of the second semester during junior year, the CAC office begins a comprehensive College Selection Process that includes the following events:

- Two junior class meetings in February where CAC staff give an overview of the college selection process and assign homework (students must submit a resume, an autobiography, a self-assessment, and the Do What You Are, interest inventory). These documents enable each CAC to develop and discuss a college list that fits the student’s academic strengths, personal interests and goals, financial situation and family expectations.

- A Financial Planning Night in February when a guest speaker (a financial advisor) helps students and parents expand their knowledge of financing college education.
- Hour-long individual appointments for each junior with their assigned CAC in March and April. During that time, counselors provide each student with a preliminary list of colleges to research over the summer.
- College Day for juniors and their families held the last Saturday in April. The College Day allows students and parents to meet with individual college representatives in a college-fair format.
- Individual family conferences in June to discuss the college search process, suggest additional colleges to consider, and discuss student summer and senior year plans.



Stephanie Martinez '10 pictured with her parents after IMSA commencement.



## Senior Year: The Home Stretch

During this critical time, CACs meet for individual hour-long appointments to discuss final list of colleges, prioritize application due dates, select teachers for letters of recommendation and answer any college application-related questions.

In September and October, the CAC office hosts an annual Fall College Visits Program for admissions representatives to interact with seniors. In October, November, and December, CACs write comprehensive letters of recommendation, process and mail admissions materials to colleges (on average an IMSA senior applies to six to seven schools), help seniors complete and submit their college applications (if needed), discuss college essays, and offer advice for college interviews.

"In short, we do anything we can to provide each senior with individual college application support," Husen said.

In April, when colleges inform students of their admissions decisions, CACs assist seniors and parents in evaluating financial aid packages and making a matriculation decision. By May 1, all students make their final college selection and the college application process ends with a celebration on the last day of classes when the final college list for the graduating seniors is unveiled.

"Our extensive and comprehensive college exploration process allows us to successfully change most students (and parents) pre-IMSA thinking that there are only 10 colleges/universities in the USA," Husen said. "In fact, there are over 2,500 options and each one has its merits!"

Successful IMSA alumni from every corner of the globe are proof positive that IMSA's comprehensive college exploration process works.

"We know that we are successful in encouraging our students to explore a variety of college options because, every year, our college matriculation list is very diverse and broad," she said.

"Members of the Class of 2010 matriculated to 66 different institutions! We anticipate similar results from the Class of 2011 and cannot wait to celebrate their college destinations on May 27, 2011 during our annual College Declaration Day!"



## Letting Go Is An Act of "Unselfish Love"

Betty Martinez said letting her daughter Stephanie '10 attend IMSA was never an easy decision, but it is one she never regrets for one second.

"Allowing her to have the IMSA experience has been the most unselfish demonstration of our love for her," Martinez said.

Martinez says her daughter's IMSA experience prepared her to excel at the University of Minnesota – Twin Cities, where she attends the College of Science and Engineering with a double major in Chemical Engineering/Chemistry.

"Because IMSA is such a diverse institution, she built strong relationships with peers, teachers, parents and staff," Martinez said. "As a consequence, she polished the skills

that are helping her to become a leader. We think IMSA was a positive experience for Stephanie in all aspects of her life."

Martinez said attending the IMSA Excel program, a three-week summer pre-enrollment program serving accepted sophomores, helped to ease Stephanie's transition to IMSA. The transition was not an easy one for her parents.

"She is the only child, so we missed her a lot," Martinez said. "We then decided to get involved at school. We were at the Academy for PAC (Parents' Association Council) meetings every month, after school activities such as Casa de Alma and Friday Fest, and birthdays, orientation and Preview Days," Martinez added. "IMSA helped us to get ready for her transition to college."

Martinez said she has enjoyed spreading the good news about IMSA to other Latino families while volunteering for IMSA recruitment activities, including a statewide informational meeting conducted in the Spanish language held in Elgin.

Betty and her husband are "forever grateful and privileged" that their daughter had the opportunity to attend IMSA, and that she did not have to give up her Latino roots.

"I would like to tell prospective Latino families that IMSA is like a family, a concept that we value in our culture, and you, as a parent, could be part of that big IMSA family by getting involved in the IMSA process," she said. "There are plenty of activities to volunteer for and plenty of lessons to learn in the process."

# FINANCIAL SUMMARY

## FISCAL YEAR 2010

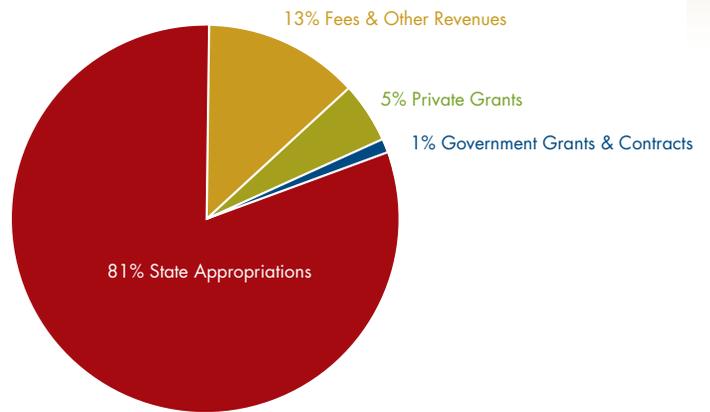
To support and expand the Academy's innovative teaching, research and external service programs/initiatives, the Illinois General Assembly appropriated an operating budget of \$18.2 million in 2009–10. IMSA and the IMSA Fund for Advancement of Education work to secure the support and participation of various constituencies including individuals, corporations, foundations, educational institutions and governmental agencies to advance the Academy's mission. In 2009–10, \$1.1 million in supplemental funding (gifts and grants) was provided.

IMSA parents paid a fee between \$340 and \$2,660 in 2009–10 to offset some of the costs of cocurricular programs and residential services.

To receive a copy of the 2009–10 IMSA Fund for Advancement of Education Annual Report, contact the Office of Advancement at (630) 907-5040.

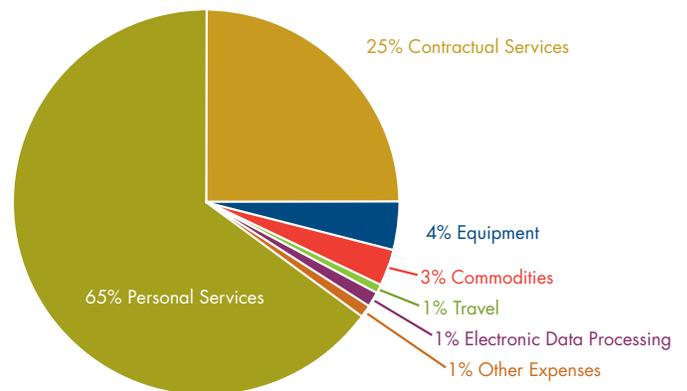
IMSA is audited by the Illinois Auditor General.

### Sources of Operating Resources



Total Operating Resources \$22,235,900

### Expenditures



## FROM THE VICE PRESIDENT

Dr. Eric McLaren  
IMSA Principal and Vice President  
for Academic Programs

**AS** a teaching and learning laboratory for imagination and inquiry, IMSA fosters a collaborative and transformative environment. We continuously strive to apply innovative ways to nurture learners' talents, honor their unique aspirations and expand their access to global learning opportunities.

Our talented faculty and staff members seize opportunities to develop innovative teaching and learning approaches. For example, IMSA's Innovation Minigrants spearheaded one team of science faculty members to convert a sophomore physics class to a self-paced and proficiency-based course. Another minigrant is enhancing students' capacity to apply mathematics and technology to design and build three-dimensional geometric structures. Our staff developed **CoolHub.IMSA**, a robust online collaborative platform that connects our students with experts around the globe to work on present day challenges such as producing alternative sources of energy.

IMSA's faculty and staff not only inspire IMSA students, they share their talents and inquiry-based instructional methods with teachers in Illinois and beyond. In January, IMSA hosted more than 100 area teachers at the 2011 STEM Student Research and Inquiry Forum aimed at supporting and fostering student research opportunities. In February, with generous support from the Abbott Fund, we held a regional IMSA Professional Development Day. Faculty and staff presented a full day of inquiry-based sessions on topics including Circling Around Trig Functions, Social Media in the Classroom, Creativity in Science and Humanities, Re-Emerging Infectious Diseases and more. With nearly 250 teacher participants from nine counties, the event was a great success.

Through our Strategic Plan, we are focusing on personalized plans of study so that students take ultimate and purposeful advantage of IMSA opportunities. We are creating a system



of support to guide students through a broad set of choices in academic programs, co-curricular activities, applied learning opportunities and service learning venues.

In Academic Year 2011, our students have applied their passions, energies, knowledge and skills to reach extraordinary heights of academic achievement and to serve others. They have earned awards and recognition from national and global competitions such as the international High School Mathematical Contest in Modeling, Intel Science Talent Search, National Achievement Scholarship Program, National Merit Scholarship Program, National Russian Essay Contest and the U.S. Physics Team Competition. They dedicated thousands of volunteer hours to improving the lives of others through projects such as tutoring at-risk children in local communities, building Habitat for Humanity homes in Florida, working with orphans in Peru and more.

As we prepare to celebrate our 25<sup>th</sup> Anniversary in academic year 2012, we reflect on our accomplishments, but more importantly, we are creating a vision for the future. That vision shapes our strategies and actions for today.

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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](http://www.imsa.edu))





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## SAVE THE DATE for the Following IMSA Events!

**IMSA Class of 2011 Commencement**

**June 4, 2011**

**Alumni Weekend**

**July 22–24, 2011**

*(Includes the IMSA Board of Trustees Alumni Awards and Alumni Volunteers Recognition Dinner and reunions for the Classes of 1991, 1996, 2001 and 2006)*

*For information on IAA events, visit [www.imsaalumni.org](http://www.imsaalumni.org).*



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