Centennial Fellow No. 23

Boris D. Chernomordik

Boris is a chemical engineering graduate of the University of Louisville, where he will continue his graduate studies. He has been engaged in nanomaterials research since his freshman year. He sees this as the current frontier for the engineering profession because nanotechnology is a "new world" to be explored and used for humanity. An internship at the National Renewable Energy Laboratory (NREL) motivated him to devote his career to the pursuit of clean, renewable, and sustainable energy sources. His research plan is to develop a new photoelectrochemical device fabrication method using nanowires dispersed on a conductive paste. Boris believes the greater surface area of nanowires means increased efficiency and enormous potential. He plans to collaborate with researchers at NREL and NASA. He believes his discoveries will advance engineering and the world toward a clean and secure energy future. President of Kentucky Beta, he has been active in Hillel, the honors volunteer program, and Big Brothers/Big Sisters.

Fife Fellow No. 106

Hnin W. Aung

Hnin graduated with a bachelor's in biological systems engineering at the University of California, Davis, where she stood third in a class of 936. She is continuing her studies at Cornell University. She has been a member of a research project looking into biological and thermochemical conversion of lignocellulosic biomass into ethanol and other biofuels. She plans to continue this for her graduate research and also plans to study other steps of biological conversion. She is building a foundation for a career in the bioenergy field and plans to work in industry eventually, researching ways to make bioenergy more efficient. She will dedicate her work to making alternative energy more competitive with fossil fuels. Hnin also plans to be active in campus outreach. She was mentored by a graduate student during her sophomore year as part of the Women's Engineer Link program and would now like to assist an undergraduate herself. She also helped to organize Asians for Miracle Marrow Matches.

Fife Fellow No. 107

Joseph R. Johnson

Joe was 27th in his class of 783 and received a bachelor's in mechanical engineering at Clemson University. He plans to major in aerospace/astronautical engineering at Stanford University. He spent two summers interning at the Jet Propulsion Laboratory in Pasadena, where he looked at robot design and control. He wants to achieve robotic flight by mimicking nature and plans to focus his graduate studies on aerodynamics. He hopes that studying phenomena at low Reynolds numbers and genetic algorithms can help him create a flying robotic insect. Joe believes this has not been realized using math-model research as little is known about small insect aerodynamics. So he plans to use the algorithms to let the robot teach itself to fly. Applications for the resulting micromechanical flying insects could include military surveillance, search-and-rescue, pollution detection, and weather prediction. He has served as a ΤΒΠ Treasurer, and other activities have included presidency of the High Five Club, Omicron Delta Kappa, scouting, and soccer.

Fife Fellow No. 108

Manuel A. Leija

Manuel has graduated from California State University, Sacramento, with a bachelor's in mechanical engineering. He was second in his class of 253. He believes service to society is the reason for becoming an engineer and that alternative energy is a top issue for the profession. His goal for graduate school at Sacramento is to concentrate on thermodynamics and alternative-energy systems. He wants to develop a system that uses clean energy to provide access to technology to people living where these conveniences are not easily available. His thesis topic will involve developing theoretical ideas, development and design of hardware, and experiment evaluation. He will seek an internship to help decide his future, but his ultimate goal is to provide reliable energy to remote populations. Manuel is a ΤΒΠ 2008 National Convention co-chair and has also served as ΤΒΠ Treasurer and EIT co-officer, as well as president of the Coalition of Renewable Energy and Alternative Technology Engineers.

Fife Fellow No. 109

Christopher R. Oliver

Chris graduated fourth in a class of 91 when he gained his bachelor's in mechanical engineering at the University of South Alabama. He will stay there to pursue his master's in mechanical engineering, with the ultimate goal of becoming a professor. That has been his goal since he became involved with the supplemental instruction program as an undergraduate and learned to teach by leading groups of students. While in graduate school, He plans to continue working for Dr. Scott L. Douglass at his university's coastal transportation engineering research and education center, where most of his undergraduate research was focused. He hopes to complete his master's in a year and a half by taking a heavy course load and enrolling in summer classes whenever available. ΤΒΠ–Alabama Power Scholar No. 7, Chris has been a ΤΒΠ Corresponding Secretary, Pi Tau Sigma president, and member of Phi Eta Sigma, Alpha Chi, Mortar Board, and Phi Kappa Phi. He has volunteered for Habitat for Humanity and a beach clean-up and is an Eagle Scout.

Fife Fellow No. 110

Karen A. Parks

Karen was first in her class of 3,424 when she graduated with a bachelor of biological engineering at Mississippi State University. She will attend the University of Alabama School of Medicine and after four years there plans to complete a residency and fellowship. Interested in orthopedic surgery, having shadowed orthopedic surgeons in the past, she is keeping an open mind for the future. She may become a practicing physician or choose to do research. However, she plans to include biological engineering in whatever she does. Karen believes that medicine is the engineering of the body and that her degree allows her to approach medical issues from the engineer's perspective. One area of active research where engineers try to imitate a mechanism of the body involves the use of biofuels as an efficient source of energy. She has been a ΤΒΠ President and is a member of Phi Kappa Phi, Mortar Board, and Gamma Beta Phi. She has tutored and been a member of her university's pom-squad dance team.

Fife Fellow No. 111

Christopher R. Shearer

Chris was first in his class of 100 at Ohio Northern University when he graduated with a bachelor's of civil engineering. He is moving on to Georgia Institute of Technology to work on a master's in structural engineering. He is interested in high-performance materials and earthquake-resistant structures. As an undergraduate, he became fascinated with structures, leading to his ambition to make them safer and more efficient. He is the son of two teachers with a desire to teach and share his knowledge by becoming a professor of civil engineering. Interning on a road and bridge project and helping to design a power station helped him by changing his perspective on construction versus design. Serving as mix designer of a concrete-canoe competition team sharpened both his research and leadership skills. Record Scholar No. 309, Chris was a ΤΒΠ representative on his joint engineering council and a vice president, and secretary of ASCE, as well as being active in Phi Eta Sigma. He sings and plays in school bands.

Fife Fellow No. 112

Shafigh Shirinfar

Shafigh was second in his class of 97 at California Institute of Technology when he earned a bachelor's in electrical engineering. Having the highest GPA in his class, he received a Jet Propulsion Laboratory undergraduate research scholarship. During his junior year, he designed a broadband, dual-channel receiver for JPL that is installed on the Deep Space Station 28 radio telescope. The device is able to observe astronomical events occurring on a very quick time scale. Shafigh is proud to have been the first undergraduate teaching assistant for quantum mechanics and statistical mechanics at Caltech. He became a teaching assistant for the microwave circuits and antenna design class, a course primarily composed of graduate students. Teaching concepts and applying them to his research has deepened his understanding. He is moving on to UC, Berkeley, for his master's, and his ultimate goal is to start a research institute to develop low-cost electronics systems for medical applications.

Fife Fellow No. 113

Adam F. Smoot

Adam gained a bachelor's in biomedical engineering at the University of Utah, where he stood 13th in a class of 1,028. He's moving on to law school at the University of Texas at Austin, with an emphasis in patent law. He was spurred on this course by his experiences after undergraduate research led to developing a novel x-ray contrast agent. He filed a provisional patent for his college and discovered the importance of intellectual-property protection in engineering. He believes that patent law will give him the rare skill set of an engineering background of problem solving and methodical analysis, coupled with legal knowledge and rhetoric. This will allow him to help engineers by protecting their ideas and discoveries, and enhance integrity by prosecuting those who seek to steal or misuse them. Adam is active in his church and spent two years on a mission before college, was a ΤΒΠ Corresponding Secretary, served as chair of his department's undergraduate student advisory committee, and played volleyball.

Fife Fellow No. 114

Brian L. Spatocco

Brian stood first in his class of 460 when he graduated from Rutgers University with a bachelor's in materials science and engineering. He is to be a Gates scholar at Britain's Cambridge University, where he plans to take a M.Phil., and then hopes to pursue his doctorate at MIT, preparing for a career in venture capitalism. Brian aims to study micro- and nanotechnology enterprise in England. He plans to combine this with business courses so he can bridge the gap between the laboratory and industry. Brian is researching a nanofabrication technique that produces patterned substrates at sub-lithographic scales with potential applications in electronics. He aims to advance knowledge of self-assembly and nanofabrication to identify promising technologies. Then he plans a transition from academia to venture capitalism by being involved in a spin-off company. He has been president of the engineering governing council, a student senator, ΤΒΠ community service chair, Record Scholar No. 315, and a member of Cap and Skull.

Fife Fellow No. 115

Joshua R. Templin

Josh has gained a master's in computer engineering at Utah State University, where he was 12th in a class of 649. He is continuing in that major at his *alma mater* for his master's. He has been working on reconfigurable computing and design automation. He is interested in design and has always been fascinated by automation of processes and effective computer organization. He believes this will help him refine his specific interest in digital system design, including compilers and real-time development tools. He plans to go on for a doctorate before joining a research team in the microelectronics and digital hardware industry. Josh has always wanted to be involved in the most up-to-date and cutting-edge technologies. After some time in industry, he will decide whether to stay there or return to the scholastic realm. He has a strong desire to teach and hopes to eventually do so, either at a university or high school. He was a ΤΒΠ Cataloguer and active member of IEEE, and received the Eagle Scout award.

Fife Fellow No. 116

Brian J. Walkenhauer

Brian has gained a bachelor's degree in civil engineering at Washington State University, where he was fifth in a class of 431. He is staying there to pursue his master's and wants to study advanced structural design, particularly seismic design. He is interested in earthquake engineering, which he sees as a unique and rapidly developing challenge that is still not largely understood. Brian has been looking at the problem caused by the fact that seismic loads cannot be predicted accurately. Measuring seismic forces on structures can help designers to handle earthquakes. He plans to earn his P.E. and structural engineer's licenses and work for an engineering consulting firm specializing in design of medium- to high-rise structures on the West Coast. His goal is to establish his own engineering firm. Record Scholar No. 327, he was ΤΒΠ Vice President and ASCE president, a concrete-canoe team co-captain, and a mentor for a high-school science bowl team and for elementary-school children.

Fife Fellow No. 117

Phillip J. Wolfram Jr.

Phil has gained a bachelor's in civil engineering at Colorado School of Mines and is moving to Stanford University for his master's. He plans to focus on environmental fluid mechanics and hydrology. He hopes to become a professor with the aim of helping to alleviate developing world water problems. He believes that America has effective control of water resources, although aging infrastructure makes vigilance necessary. But the developing world is not this fortunate, and he wants to serve humanity through water resources engineering. His fascination has been kindled by internships with consultants Wright Water Engineers and its non-profit institute advancing knowledge of ancient people's water use. His mentors have helped him to understand the consulting water engineer's role within society and how civil engineering affects the environment. Phil has been a ΤΒΠ President and Corresponding Secretary and a member of ASCE and the Explorers' Club and has had three articles published.

King Fellow No. 47

Anisa Como

Anisa has graduated with a B.S.C.E. at Idaho State University—second in a class of 217. Her next step is a master's in structural engineering at the University of Illinois at Urbana-Champaign. She has always been fascinated by engineering and structures, and was increasingly drawn to engineering at college. She joined a research project on seismic evaluation of bridges in Las Vegas, NV. This led to her own seismic risk assessment of Idaho highway bridges using Zeus NL software. There, she performed a nonlinear pushover analysis to determine the damage extent under a simulated seismic event. Anisa was a teaching assistant at the engineering college, which gave her an insight into education and a desire to continue her studies with a view to becoming a professor eventually. ΤΒΠ Record Scholar No. 240, she served as a ΤΒΠ chapter Treasurer. A member of Phi Kappa Phi, she was captain of the steel bridge team and active in SWE and the Nepalese Student Association.

Stark Fellow No. 31

Aaron A. Boomsma

Aaron graduated with a bachelor's in mechanical engineering from South Dakota State University, where he tied for first in a class of 394. He's moving on to his master's and plans to advance his studies in the field of heat transfer/fluid flow at University of Minnesota-Twin Cities. He hopes to conduct research in one of two areas: turbomachinery or nuclear-powered Sterling cycles. During the summer of 2007, he interned at NASA Kennedy Space Center, which showed him existing research opportunities. A childhood love of math and science took him to college, where he has earned a perfect 4.0 through seven semesters and membership in Pi Tau Sigma, Phi Kappa Phi, and Alpha Lambda Delta. After his master's, he plans a career in the fluid-power industry while working toward a doctorate. Later, Aaron aims to teach engineering at a university to support the profession that sustains him. Aside from study, he teaches Sunday school and plays trumpet in his school's marching band.

Spencer Fellow No. 53

Jonathan C. Silver

Jonathan has gained a bachelor's in mechanical engineering at the University of Hartford, where he was fourth in a class of 148. He is going to Notre Dame where he plans to major in flow induced vibrations. He discovered the field of aeroelasticity as a result of his interest in fluid dynamics and vibrations and thinks it will be applicable to the next generation of human transport and alternative methods of energy harvesting. He believes he has much to offer in this field, coming from a mechanical, rather than an aeronautical, background. His ambition is to run a research laboratory or become a professor. Record Scholar No. 310, Jonathan wants to help advance Tau Beta Pi and has been a ΤΒΠ President. He hopes to serve as an Advisor or District Director. He has been active in ASCE, the Acoustical Society of America, Audio Engineers Society, Alpha Lambda Delta, and Alpha Chi and was a disc jockey on the student-run radion station WSAM. He served on the Residential Hall Association/Village Community Council.

Sigma Tau Fellow No. 35

Travis D. Kubal

Travis tied for first in a class of 394 when he received a bachelor's in mechanical engineering at South Dakota State University. He plans to focus his graduate studies at Purdue University on thermal and fluid sciences and to specialize in propulsion. He believes that advances like ramjets, electromagnetics, and nanoscale propulsion will keep advancing, and he wants to be involved. He has researched the economic feasibility and thermochemical conversion efficiency of prairie cord grass, looking into net energy gain from the process. Internships at TSP and Johnson Controls have taught him teamwork and communication skills, aided by physics tutoring. Travis plans to go on for a Ph.D. His long-term goal is to be head of research at a national laboratory or a cutting-edge company. He would like to end his career as a professor, passing on his knowledge to the next generation. Record Scholar No. 310 and a member of ΦΚΦ, he served as a ΤΒΠ Chapter President and Cataloguer and Pi Tau Sigma president.

Williams Fellow No. 29

Joseph M. Martel

Joe was first in a class of 64 when he earned his bachelors in mechanical engineering at Union College. He plans to stay with mechanical engineering at Harvard University for his master's and doctorate. He has concentrated on microfluidics, recently working on a new technique for measuring shear stress in microchannels using liquid crystals, and he intends to focus on thermal fluid sciences. Having interned at a structural and environmental engineering firm and the Connecticut Global Fuel Cell Center, Joe plans to obtain a teaching assistantship to gain further insight into his long-term career goal. That is to become a professor so that he can transmit his passion to others at cellege level. This is tied to his fascination with the human mind, which led him to pursue a minor in psychology and serve as a resident advisor in a freshman dorm. A member of ASME, Sigma Xi, and Pi Tau Sigma, a ΤΒΠ President, and an Eagle Scout, he played intramural soccer and softball.

Deuchler Fellow No. 29

Katharine G. Dahm

Katharine has gained a bachelor's in environmental engineering at New Mexico Institute of Mining and Technology, where she ranked first in a class of 350. She's staying in the environmental field as she progresses to her engineering master's at Colorado School of Mines and eventually a doctorate. Having lived in an arid state, she is interested in water reclamation and reuse. She believes further research in treatment technologies that allow the reuse of water is the future worldwide in solving problems of water shortage and quality. She also seeks to pursue certification as a professional engineer because industrial experience is invaluable. She has much respect for professors who have worked in industry and can bring the interests of both sides to students. Katharine has also worked in consulting where she learned that practical issues and theory can have an interesting relationship. Active in the Society of Women Engineers, environmental engineering club, and ASCE, she was a Tech women's soccer-team captain.

Matthews Fellow No. 11

Adam K. Janzen

Adam graduated in civil and environmental engineering—first in his class of 1,715 engineers at the University of Illinois at Urbana-Champaign, specializing in water resources engineering, particularly groundwater. His courses included hydrology, geology, and geotechnical engineering. He will continue these topics for his master's at Princeton University. He could see himself working for a private consulting firm or a governmental agency and does not rule out returning to academia someday. Two topics that interest him most are how groundwater is used for public supply and the geological sequestration of carbon dioxide. Adam sees groundwater as a widely used but threatened resource. He is also focused on Princeton's lead in carbon sequestration research. Record Scholar No. 267, he served as Illinois Alpha Recording Secretary and Boy's State counselor, played bass trombone in his university's jazz big band, and served on the engineering council dean's student advisory committee.

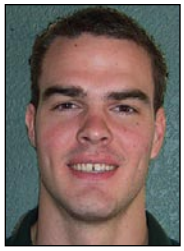
Nagel Fellow No. 11

Lauren P. McNeill

Lauren has completed her bachelor's in civil engineering at the University of South Alabama and plans to continue her studies at Texas A&M University. The main focus of her undergraduate research was in coastal engineering, especially the effects of wave loads on bridge decks. Living along the Gulf coast, she believes the typical U.S. design for highway bridge decks is to minimize cost while maximizing traffic efficiency. Several coastal bridges have collapsed during storm surges, and Lauren believes more research is needed. Her career goals are to work in the coastal environment for either the public or private sector, enhancing infrastructure safety while maintaining the natural coast. She has been involved in demonstrations for middle-and high-school students in the wave-basin facility at her university. She has been a ΤΒΠ Vice President, as well as an active member of the American Society of Civil Engineers and the Society of Women Engineers, and has volunteered for Habitat for Humanity.

Anderson Fellow No. 4

Nicholas R. Stuckert



Nick is a double-major chemistry and chemical engineering bachelor's graduate of the University of Wyoming. This was preceded by an associate's of science at Casper College, WY. He will continue chemical engineering studies in the fall at the University of Michigan. He focused on catalyst synthesis for ethanol-to-ethane conversion and believes that he built a solid foundation for the catalysis research he wishes to pursue. He has also worked for a small R&D firm where he managed projects and learned to apply his education, as well as time-management skills. He has taken part in research at the Pacific Northwest National Laboratory, where he ran projects and met deadlines. Nick plans to obtain a Ph.D. in chemical engineering before teaching and continuing research as a professor. He wants to pass on his knowledge and believes that teaching will give him the freedom to help his community. He was a ΤΒΠ Chapter President and has been active in organizations including Habitat for Humanity.

Hanley Fellow No. 4

Michael C. Kozlowski

Mike has graduated with a bachelor's in mechanical engineering from the Massachusetts Institute of Technology, where he was first in a class of 1,021. He is staying there to pursue a master's in mechanical design, with an emphasis on inventing an aftermarket, easily-transportable device for those who struggle with vehicle transitioning. This was inspired by seeing the challenges and dangers to his grandmother when entering and exiting the family car. Mike believes that living with a cleft lip and palate has given him qualities of leadership, mental toughness, and maturity, along with compassion and empathy. His coursework has led him to build robots and design feedback-control systems, enhancing his product design skills, and his graduate curricular structure offers the ideal environment to complete his device. He is a member of Pi Tau Sigma, spent a year as varsity hockey captain, mentored for the ReachOut program, and volunteered for the Charles River Conservancy.

Arm Fellow No. 1

Ryan E. Schultz

Ryan was eighth in his class of 394 at Rose-Hulman Institute of Technology when he gained his bachelor's in mechanical engineering. He's moving to Purdue University for his master's so that he can reach his full potential amid the growing complexity of his field. He interned in 2007 for Cummins Inc. working on data condensation and analysis to improve light-truck engine design. Understanding data, writing the code, and watching it work were the most fulfilling experiences of his career. Now Ryan wants to work with intelligent data analysis and systems where a computer intelligently summarizes the information. He especially enjoys creating robust tools with more than one application. A member of Pi Tau Sigma, Pi Mu Epsilon, and Alpha Lambda Delta, he has been a ΤΒΠ Indiana Beta Chapter Treasurer, a homework tutor, news editor of the campus newspaper, a math and science tutor, and a participant in intramural soccer, volleyball, and Ultimate Frisbee.

Lynnworth Fellow No. 1

James Kaklamanos

Jim earned a bachelor's degree in civil engineering at Tufts University, where he was first in his class of 182. His life goal was to become a lawyer, and his choice of major originally was to give him logical and analytical skills for his legal career. After developing a passion for civil engineering, he now plans to pursue his master's at Tufts, with interests in both geotechnical and water resources engineering and the interactions between them. He wants to look at issues like soil mechanics, earthquake engineering, groundwater hydrology, and legal issues of engineering. Two current projects involve dam-safety analysis and shear-wave velocity, a parameter for geotechnical and seismic design. For the long term, Jim is considering a life in academia, becoming a lawyer focusing on engineering-related issues, or becoming a civil engineer. He has been a ΤΒΠ Corresponding Secretary and Donoghue Scholar No. 1, as well as chapter president of ASCE and volunteer at Habitat for Humanity and Boy's State camp.

Tau Beta Pi Fellow No. 758

Arjun S. Adhikari

Arjun is a chemical and biological engineering B.S./M.S. graduate of Polytechnic University, where he was part of the honors college and ranked first in his class of 25. He has been working on drug-delivery systems and contributed to a project that won first prize in the biotechnology section of the AIChE annual conference student-poster competition. He is undertaking his graduate studies at Stanford University honing his research and analytical abilities in the field of biotechnology/biomaterials. After his Ph.D., he hopes to earn an M.B.A. before joining an engineering firm as a manager. His aim is to have his own pharmaceutical company. He plans to achieve this by linking his chemical engineering skills with the abilities gained from his M.B.A. so that he knows both the business and the science. Arjun believes this can lead to advances in biological science and engineering. Vincent A. Stabile Scholar No. 7, he has been a chemistry team leader at the campus tutoring center and was 2007-08 ΤΒΠ New York Rho Chapter President, with a similar role during 2006-07 for Omega Chi Epsilon.

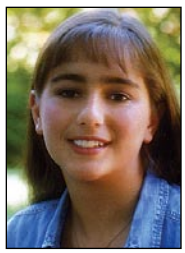
Tau Beta Pi Fellow No. 759

John E. Bistline

John is graduating with a bachelor's in mechanical engineering from Carnegie Mellon University. He sees energy demands for economic health and environmental sustainability as a challenge for society. His studies so far have spurred him to pursue a graduate degree in mechanical engineering at Stanford University. He has researched the use of environmentally benign solid/powder lubricants for applications like fuel cell systems. He worked on evaluating carbon-monoxide emission reduction in the power sector before conducting original research on the effect of electricity generation on water resources. John believes that energy and water infrastructures play vital roles in modern society. He plans a research-oriented career in academia, looking at energy and the environment within the context of mechanical engineering, believing that it gives him a deeper understanding of key issues. He has been a ΤΒΠ Chapter Treasurer and plays in several orchestras, as well as the school wind ensemble.

Tau Beta Pi Fellow No. 760

Hana L. Dodini



Hana majored in civil engineering for her bachelor's at the University of California, Davis, where she stood 24th in a class of 936. At the University of California, Berkeley, she will pursue her master's, and possibly a doctorate, in civil engineering, with an emphasis on the structural side and earthquake-resistant building design. Her goal is to earn her professional license and to design safer and more earthquake-resistant buildings in northern California. She also hopes to use her knowledge to help improve structural codes and safety regulations. She has entered this field after internships at a local water agency and at the California Department of Transportation. Growing up near the San Francisco Bay area exposed her to earthquake fears. So research at UC, Berkeley, with earthquake ground-motion attenuaton models sparked her interest in that direction. Hana may also teach engineering or mathematics later. She has been a ΤΒΠ Corresponding Secretary and chapter president for ASCE, as well as an active member of the Caltrans student engineer mentor program.

Tau Beta Pi Fellow No. 761

Robert J. Gensheimer III

Jim was fourth in his class of 325 when he graduated from the United States Naval Academy with a bachelors's in ocean engineering. He plans to continue his studies in civil and coastal engineering at MIT. Having been reared on the Maine coast, he has focused on this track, acquiring a wealth of knowledge, including beach and shoreline protection, ocean structures and materials, and sediment transport. Naval academy training is aimed to develop military leaders, and he spent a year there as a battalion commander in charge of leading 760 midshipmen. On completion of his master's, Jim will be eligible to return to Annapolis as a military professor for two years, and he is keenly interested in this assignment. If he decides on a teaching career, then he would pursue his doctorate. A ΤΒΠ Corresponding Secretary, member of Phi Kappa Phi, weapons battalion rifle coach, and certified scuba diver, he received awards for being the top-ranked skipper during summer offshore sailing and for sailing training.

Tau Beta Pi Fellow No. 762

Matthew D. Lew

Matt was fourth in his class of 103 at California Institute of Technology, when he gained his bachelor's in electrical engineering. He is studying for his master's at Stanford and has also been awarded an NSF graduate research fellowship and a Stanford graduate fellowship. He will be working on biophotonics, using the generation, manipulation, and detection of photons for biological applications. He believes that this research could revolutionize biomedics. Matt is interested in development of a compact on-chip and low-cost phase imaging microscope, which can greatly simplify many existing biomedical analysis procedures, including detecting cancer cells. He plans to continue for a doctorate and hopes to become a professor at a research institution. Experience as a teaching assistant taught him that he can enjoy teaching and research, and he wants to pursue both. Record Scholar No. 273, he has been a ΤΒΠ Chapter President, vice chair of the IEEE student chapter, a member of the International Society for Optical Engineering, and a stage manager for the Caltech-Occidental Symphony Orchestra.

Tau Beta Pi Fellow No. 763

Andrew D. Paquette

Andrew has graduated with a bachelor's in electrical engineering from the University of North Carolina at Charlotte. He has been awarded an assistantship and a fellowship from the Georgia Institute of Technology, where he will stay with electrical engineering for his master's. He believes the combination of rising energy costs and global climate change will give his generation a complex set of challenges. His focus will be on the design and construction of efficient energy conversion systems, and he is interested in the improvement of energy conversion processes through multi-disciplinary research. Efficient designs need the application of both the electrical and mechanical domains. He has started investigating the design of a low-cost drive for single-phase induction motors. Andrew plans to pursue a Ph.D., launching a career in research and teaching. North Carolina Delta Chapter ΤΒΠ President and active in ΗΚΝ, ΦΚΦ, IEEE, and Air Force ROTC, he was an undergraduate research assistant.

Tau Beta Pi Fellow No. 764

Jonathan R. Salontay

Jonathan has graduated from Ohio Northern University with a bachelor's in mechanical engineering and was sixth in his class of 100. He will be doing his master's at Purdue University, focusing his research on combustion and efficiency in engines. He worked as an engineering co-op at Honda of America manufacturing, where he learned to conduct tests, analyze the results, and then communicate them. He believes that communication is an engineer's most important tool. Research and knowledge will be lost if engineers cannot correctly communicate them. His ultimate academic goal is a Ph.D. in mechanical engineering and a professorship. Jonathan wants to discover more environment-friendly combustion systems in the automotive, aerospace, or power generation fields. He has been ΤΒΠ Ohio Iota Chapter President, a treasurer for Phi Eta Sigma, and a member of the ASME. A senior representative on the joint engineering council that organized events at the college, he also served as an engineering representative at his campus office of career services.

Tau Beta Pi Fellow No. 765

W. Scott Van Dyke

Scott graduated second in his class of 100 with a bachelor's in mechanical engineering at Cedarville University. He is going on to a doctorate in biomedical engineering at Purdue University. Scott wanted to be a biomedical engineer when he became an undergraduate and chose the mechanical route so he could later use the principles involved for biomedics. After his experience in the summer undergraduate research fellowship program at Purdue, he decided to study injury prevention and treatment. Scott's research interests are analysis and modeling on the biomechanics of anatomic structures, particularly in the head, neck, and spine. He plans to pursue a career in research and development involving biomedical engineering related projects, possibly researching crash safety for an automobile manufacturer or developing injury prevention for sports orthopedics. He was ΤΒΠ Chapter President, as well as being active in ASME and SAE. He also went on a missionary aid trip to Liberia.

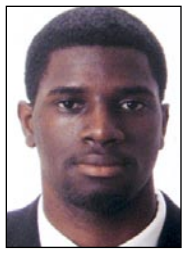
Tau Beta Pi Fellow No. 766

Travis W. Walker

Travis was first in his class of 330 when he graduated with a bachelor's of chemical engineering at South Dakota School of Mines & Technology. Now he is continuing his chemical engineering studies at Stanford University and believes that a Ph.D. will be the next step toward his goal of becoming a professor and leader of his own research laboratory. He has become interested in sustainable energy, specifically the area of photovoltaics. His mathematical background means he is fascinated by finding ways of increasing energy efficiencies. Sponsored by the AIChE last summer, he completed a public policy paper on "Mass Electrical Storage" as part of the Washington Internship for Students of Engineering (WISE) program. Exposure to the political perspective of energy research has shown Travis the importance of education as governmental officials try to understand and assess priorities. Nagel Scholar No. 25, a member of Phi Eta Sigma and AIChE, he served as a high-school wrestling coach and has taken part in NAIA track and field and football. He is an Eagle Scout.

Tau Beta Pi Fellow No. 767

Andrew P. Wilson



Andrew was first in his class of 84 when he graduated from Howard University with a bachelor's in chemical engineering. He is heading for Britain's Cambridge University for his master's. He has been researching areas in catalysis/nanotechnology, which involves the synthesis of a zinc complex. This has the potential to be a simpler method of producing nanowires from raw organic materials, with applications in sensing, micro-fluidics, and transducers. Andrew is also interested in producing biofuels by using enzymes to break down the sugars in plant matter and cellulose. He believes cellulosic ethanol can be made with any plant matter and will not create food-supply issues. If he pursues this research, he hopes to develop a biofuels plant for his native Jamaica. Dodson Scholar No. 26, he has been a ΤΒΠ community-service chair and AIChE president and active in the National Society of Black Engineers and Engineers Without Borders. He was a member of the school's NCAA tennis team.

PLANNED GIVING

TAU BETA PI'S UPDATED 26-PAGE guide to planned-giving opportunities shows how your support can benefit both our Association and your financial situation.

Topics include:

- Gifts of cash, stock, real estate, and life insurance,
- Charitable lead trusts, and
- Charitable remainder trusts.

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The proper form of a bequest is: "I give, devise, and bequeath to The Tau Beta Pi Association, Inc., a corporation existing under and by virtue of a charter granted by the State of Tennessee and with its Headquarters in the City of Knoxville, in said state, $ . . . (or, the following described property, or securities)."