



Issue 10, Winter 2012

OSAA E-NEWS



As 2011 comes to an end, Ohio's STEM Ability Alliance (OSAA) has completed another quarter marked by significant student achievements and key events. Most notably, We have finished the third year of the National Science Foundation Research in Disabilities Education (RDE) grant that supports our efforts to increase the representation of students with all types of disabilities in Science, Technology, Engineering and Mathematics (STEM) based career fields.

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OSAA is a joint undertaking of Wright State University, Ohio State University, Sinclair Community College and Columbus State Community College along with partner K-12 school systems and government and industry employers. The alliance is implementing a system of interventions at the high school and college levels focusing on recruitment, retention and graduation of STEM college majors, and transition to STEM careers. This newsletter highlights OSAA's accomplishments during the fall quarter and outlines ongoing programs and plans for the upcoming winter and spring quarters. One of our primary goals is to report the progress of individuals participating in our alliance activities to STEM educators, sponsors, OSAA Scholars, staff and faculty who share our interests.

Dates Set for the 3rd Year Residential Campus Experience for High

As a part of its Learning Community programming to promote transition to postsecondary STEM education, Wright State University and Ohio State University have begun plans for the third residential campus experience for high school junior and senior students. In July 2011 DIVERSE-ABILITY U. hosted twenty-six students for the five-day, four- night experience. The event was held on Wright State University campus and provided high school students with disabilities knowledge, hands on STEM experiences and opportunities for self discovery to help them prepare for college success. Six half-day academic seminars offered immersive experiences in fields ranging from engineering mathematics to behavioral neuroscience.



The dates for the 2012 event have been set for July 8-12.

Email OSAADayton@wright.edu for more information.





Ohio's STEM Ability Alliance

STEM Degrees and Careers for Ohioans with Disabilities



OSAA Dayton QUAD News

OSAA Scholar visits Portugal for International Association of Forensic Science

The International Association of Forensic Sciences (IAFS) is a worldwide symposium started in 1957. The goal of the conference is to develop the forensic sciences and to 'assist forensic scientists and others to exchange scientific and technical information'. The IAFS has arranged a total of 19 meetings in major cities all over the world. The last meeting was in Madeira, Portugal. WSU OSAA Scholar and biological sciences major Erin was able to attend this triennial meeting in September of 2011 and she writes about her experience there:



Erin at the IAFS conference

The weeklong meeting allows for multiple events and different opportunities for learning. At the beginning of the week I attended workshops to hone my testimony and entomology (bugs) skills. For the rest of the week, conference members attended presentations from researchers on every topic you could think of within the forensic sciences. Students who had been accepted to present, showed off their work during the lunch breaks. This allows you to meet other students just like you and share your experiences and knowledge. At dinner attendees have the perfect time to meet and talk to each other. This unique opportunity is worth the trip because you get to hear about all of the research that is currently being planned, and you get to make connections with people from around the world.

This trip was not entirely academic, at the end of the conference we were led on a guided tour of Madeira. Throughout the day we learned many interesting facts and the history of Madeira. This cultural experience is breathtaking and so beautiful. All of the meals that were provided were traditional Portuguese food, which was *interesting* at times. Some of the meals included foods that I would have never tried in the US, but I'm pleased now that I was given the opportunity to taste them.

My experience at this meeting was so unreal; I learned so much and had such an amazing time. I met a lot of people and even some that live near to Dayton. The contacts that I made at this conference have helped in my research and in getting my name known in this field. I will be eternally grateful for this experience and I highly recommend that students attend conferences like this one. I hope to attend the next conference in Egypt in 2014.



Erin enjoying the scenery in Madeira, Portugal



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A Letter from one OSAA Scholar's Experience at the Permobil Power Trip



Hello,

I recently attended the Columbus Permobil Power Trip with other OSAA members and the event has impacted my life more than I could imagine. Since that trip, networking with their sales representatives from PA, OH, and MI and product engineers has led to me receiving a new power wheelchair with all of the necessary, (and some wish list) features. I had been attempting to get a new wheelchair for over a year and the process has been awful. Medicare/Medicaid has denied me once due to me not having sufficient need for a power chair. Then, in the second request, they accepted the base of a chair that doesn't fit my needs, but I did not have a severe enough disability to have a back to my seat. To get the chair that works best for me, I was told that I had to pay out of pocket all the extra charges for the correct base, the back seat, the elevation feature, and the joystick most accessible for me. After realizing how much this would cost, I was scared I couldn't get a chair and would just have to keep this one until it completely died on me.

Permobil first learned of my situation from my wheelchair provider and realized that the provider's client was me and due to my networking, my wheelchair provider, sales representatives, and product engineers took my case to corporate and decided that Permobil will provide me with a chair with the correct base, elevation, and joystick and only bill Medicare/Medicaid for the cheaper/wrong base and nothing else. Now I'm back to reapplying for a new chair through Medicare at the low price and I'm waiting anxiously for an approval. Medicare *should* approve it since it is paying for literally only half of a power wheelchair. No matter what happens, I know that I'm eternally grateful for being able to network with Permobil because I would not have any chance of receiving a full chair without a gigantic bill that I could not pay.

I know you know my love for Permobil, but I thought you should know that making an OSAA trip to their PowerTrip played a large factor in enabling me to receive a new wheelchair. It also makes my active role in OSAA worth my time and effort.



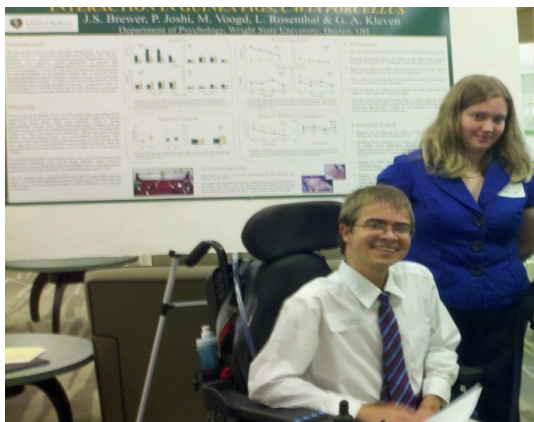
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Scholars and Faculty Attend Purdue Conference

Two Wright State OSAA Scholars along with Principal Investigator Dr. John Flach, Director Dr. Clark Shingledecker and Program Coordinator Brittany Boyne attended The Independence Science: Learning a New Direction (IsLAND) Conference on October 28 at Purdue University in Lafayette Indiana. In its second year, the IsLAND conference aims to inform educators and future educators about the latest assistive technology to make laboratory science accessible to students with disabilities, while exploring alternative teaching methods and simple access solutions for learning. This year's conference also emphasized the use of multi-sensory and hands-on approaches in order to generate elevated student interest in classroom material. Symposium topics also included factors that contribute to Science, Technology, Engineering, and Mathematics (STEM) underrepresentation and strategies for increasing representation among students with disabilities.



Scholars presenting their posters

Dr. Shingledecker gave a presentation entitled: Emerging Best Practices to Support Transition of Students with Disabilities to College and Persistence in STEM Majors in which he shared some of the key interventions and outcomes from OSAA's college programs and from the Starting Wright internet resources for early high school and middle school students with disabilities. Wright State OSAA Scholars Jacob and Katherine presented posters summarizing the results of their supervised research projects in neuropsychology and toxicology and shared their experiences as interns with disabilities in the STREAMS summer internship program.

Overall, the conference was a wonderful opportunity for students and OSAA leaders to network with a group of colleagues who are also addressing the problem of making STEM accessible and to learn about opportunities and innovations that will open doors for many students with disabilities now and for years to come.

For more information and future conferences from The Independence Science: <http://independencescience.com/>



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Visualization Laboratory Experience Set for January

The first Dayton Quad OSAA Scholars meeting of the winter quarter will feature a visit to the R.C. Appenzeller Visualization Laboratory in the Joshi Research Center on the Wright State Campus. Visualization researchers develop software systems that provide novel visual representations which allow exploration, analysis and comprehension of complex concepts and data sets. Virtual and augmented reality and 3-D video are popular examples of the techniques used in visualization research.

OSAA Scholars should meet in the atrium of the Joshi Center at 6:00 pm on Wednesday January 11 for this special tour and demonstration. Our guide will be Dr. Thomas Wischgoll, Associate Professor of Computer Science and Engineering and Director of Visualization Research at Wright State. He will discuss and demonstrate the use of advanced visualization methods and tools in a broad range scientific and engineering areas that are likely to include the STEM fields of interest to all OSAA Scholars. Refreshments will be served.



Virtual Reality in the Appenzeller Laboratory



Dayton Quad Upcoming Events

January 11, 2012 - OSAA Scholars Meeting. 6:00 p.m. Joshi Research Center Atrium.

February 15, 2012: -STEM Recruiting Day. 9:00 a.m. to 12:00 p.m. WSU Student Union Apollo Room. This event will host a multitude of STEM employers from the region looking for interns and career employees.

March 8, 2012: Employability 2012 Career and Internship Expo. 9:00 a.m. to 11:30 a. WSU Student Union Apollo room. Meet employers who are committed to hiring people with disabilities.

For more information, email EmployAbility@wright.edu or visit www.EmployAbilityExpo.com

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The Ohio STEM Ability Alliance is supported by the National Science Foundation under NSF Award Number HRD-0833261. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect those of the National Science Foundation.

OSAA Columbus QUAD News

Fall Quarter Student Learning Community at OSU

This fall, OSAA hosted an Advanced Student Learning Community for new students to the program. Students met once a week throughout the quarter. We covered topics such as time management, goal setting, learning styles, resume tips, and how to be successful in an interview. On the last day, the students presented their self-advocacy plans, which outlined their goals, employment plans, accommodations, strengths, and weaknesses. The students will continue on with OSAA through the mentoring, ability advising, and internship portions of the program.

Mentor Mingles at OSU

In November, the Columbus Quad put on two mentor mingles for participants to attend. At the first mingle, students had the opportunity to tour the Ohio Supercomputer Center (OSC), located on Ohio State University's campus. Since 1987, OSC has been providing its clients services in four areas, or functions: supercomputing, research, education, and cyber infrastructure. The OSC works with private companies, non-profit agencies, and all of Ohio's higher education institutions. After hearing about some of the research that goes on there, students were invited to try out a computer simulated operation, using a tool that drills bone. It was fascinating to try out the technology being developed that might be commonplace someday. For more information on the OSC, visit <http://www.osc.edu/>.



Students trying out the simulation tool used for scraping



At the second mentor mingle, students gathered for a refresher on internships and how to pursue them. Even though next summer is a long way off, students should be preparing their applications to meet early deadlines in 2012.

Follow us on Twitter at <http://twitter.com/OSAAOSU> and check out these great resources:

AAAS EntryPoint! ehrweb.aaas.org/entrypoint/

Pathways to Science <http://www.pathwaystoscience.org/>

NSF Research Experiences for Undergraduates http://www.nsf.gov/crssprgm/reu/reu_search.cfm

USAJOBS <http://www.usajobs.gov/>



NASA <http://intern.nasa.gov/>

NASA Glenn http://www.nasa.gov/centers/glenn/education/LERCIP_GRC.html

Department of Energy http://www1.eere.energy.gov/education/internships_fellowships.html

National Institutes of Health <https://www.training.nih.gov/programs/sip>

Ohio Agricultural Research and Development Center <http://www.oardc.ohio-state.edu/orip/secondary.asp?id=221>

Jackson Laboratory <http://education.jax.org/summerstudent/index.htm>

Columbus Quad Partner Lunch

On November 14th, the Columbus Quad met with its business and university partners over lunch to discuss collaboration opportunities and updates to OSAA. The keynote speaker was a current mentor to a student in OSAA. He talked about his experiences in STEM employment as a person with a disability and highlighted the important impact mentoring had on him. It was inspirational to hear his story and how he overcame the challenges in his life.



News

Inspired by the **Educate to Innovate Campaign**, President Obama's initiative to promote a renewed focus on Science, Technology, Engineering, and Math (STEM) education, the National STEM Video Game Challenge is a multi-year competition whose goal is to motivate interest in STEM learning among America's youth by tapping into students' natural passion for playing and making video games.

The 2012 National STEM Video Game Challenge was launched in partnership with **Digital Promise**, a new initiative created by the President and Congress, supported through the Department of Education. The initiative is designed to unlock the promise of breakthrough technologies to transform teaching and learning.

For more information: <http://stemchallenge.org/Default.aspx>





Internship are Vital to Your Career

Whether you have decided on the exact career of your dreams or are still exploring possibilities, now is the time to start gaining experience. Internships of all types help you gain valuable experience that will help you be competitive with your peers after graduation. Some internships are very specific to your career goals. A student majoring in Electrical Engineering stated about his internship with Air Force Research Laboratories, "The internship makes me very employable right away with cutting edge research." The student, who has career experience from before returning to college several years ago, realized that in a STEM field, current experience is vital to employment. For those who have not yet decided on their particular career goal, internships are still vital for building references, work history, and transferrable skills, such as communication and teamwork. Now is the time to search for summer internships and help is available to you. Contact your OSAA advisor to learn about the resources available to you and how to use them.

Interships, Scholarships Opportunities

The following opportunities were provided by the Institute for Broadening Participation

- For Undergraduates: Paid Summer 2012 Undergrad Research Placements: More than 650 programs – REU and other summer research opportunities for undergrads at more than 350 institutions nationwide.
- For Financial Support in Graduate School Opportunities: Bridge to the Doctorate, IGERT, NSF Grad Research Fellowship and other programs provide generous stipend and tuition support for students through the National Science Foundation.
- For Postdoc opportunities: Programs offer minority students support in science, technology, engineering, and mathematics fields.
- [For NASA-supported interships,fellowships and scholarships](#)