
KIN INSIDER

Lauren Whisenant, Editor

A Message from the Chair...

Development in the KIN Department

On behalf of the Kinesiology and Sport Science (KIN) department, School of Education and Human Development, we welcome our new President, Dr. Julio Frenk, to the University of Miami. President Frenk enjoyed a visit to our Max Orovitz Laboratories where he toured the Athletic Training facilities, the Sports Medicine and Motion Analysis Laboratory, and the Neuromuscular Research and Active Aging Laboratory. Dr. Frenk met with our faculty along with several undergraduate students where he learned about some of the current research being conducted in our laboratories.

Coming up on my 15th year as Chair, the KIN department has become a force at the University, national, and international levels. We've had Visiting Scholars with us from all over the world including Turkey, Brazil, Ireland, and South Korea. The undergraduate programs continue to flourish and for the first time we have had a large number of undergraduate students conducting research side by side with graduate students and writing up their research for national presentations at the American College of Sports Medicine.

In Sport Administration, both faculty and students prepare for the 4th Annual Global Sport Business Association Conference in February 2016 while faculty continue to review abstracts and manuscripts submitted to their accompanying journal, *Global Sport Business Association Journal*. The online graduate program continues to flourish as we now have 5 different cohorts totaling 92 students from all over the country.

The Athletic Training program continues to march forward in its path toward excellence boasting one of the highest passing rates in the country on their national certified athletic training examination. Given the new mandate issued by the National Athletic Training Association, plans are underway to develop a Master's degree in Athletic Training.

HIGHLIGHTS INSIDE THIS ISSUE:

- 2 Athletic Training program on the field
- 6 High Schoolers participate at Max Orovitz
- 8 Dr. Mullane receives diving award

UNIVERSITY OF MIAMI

DEPARTMENT of
KINESIOLOGY & SPORT SCIENCES



The Laboratory of Neurocognitive Physiology continues to provide state of the art research on the brain featuring cutting edge research on EEG activity, exercise, and executive cognitive function. The Guardrails program which provides the first physician/exercise physiologist interface is expanding its clinics to promote the health and well-being of patients while undergraduate students check on the progress of its participants. Plans are now underway to work with team orthopedists to assess the nutritional intake and human performance capabilities of UM athletes.

On another note, we wish to congratulate Meng Ni on her postdoctoral position at Harvard and Dr. Signorile and his doctoral students who have made it to the top 25 of the most recently cited articles in their respective journals.

After a productive year of completing 12 national presentations and 24 published articles by faculty and students in 2014, we're hoping 2015-2016 brings continued success to our department and programs.

Sincerely,

Dr. Arlette Perry, Chair

Kinesiology and Sport Sciences Department
University of Miami



Image from practice in the classroom

Athletic Training Program From the Classroom to the field

The exciting part of the Kinesiology and Sport Sciences Department at the University of Miami has always been this Department's synthesis of classroom and real life experiences.

This year, in Athletic Training (AT), the students continue to be a major part of various Sports Medicine teams throughout southern Florida. During the fall, the majority of students in the AT Program work with medical staffs who are covering the high impact sport of American football. These sites include University of Miami Football, Gulliver High School, Westminster High School, Florida Christian High School, and UHealth Sports medicine clinic. Both at the high school and on the collegiate level, management of catastrophic injuries continues to garner a lot of press and attention. The AT program continues to implement the newest best practices and literature into their teaching of emergency management and practice of that on the field. This past summer, there was a paradigm shift in emergency care to

focus potential removal of athletic equipment in the suspicion of a cervical spine (neck) injured athlete. This shift was drastic and required significant changes from the teaching level. As we returned to campus in August, the AT students along with many of the AT staff worked together to explore the new techniques and practice them in a controlled environment. Subsequently, these students have used those specific skills at all the aforementioned levels, with terrific outcomes for

the patients. Every time, supervising athletic trainers, physicians, and local EMS personnel have complimented the high level of care our students have provided in such a tense emergency management situation. These accolades speak to the students' commitment and excitement about their chosen profession, and the Kinesiology and Sport Sciences Department at the University of Miami!

Athletic Training students are always on the front lines of applying the skills and knowledge they gain in the classroom to "real-life" clinical situations. As sports medicine continues to evolve into a patient centered field, so will the AT program at the University of Miami!



Athletic Training students & Professor Justin Tatman before a UM game this season

U.ATHLETIC TRAINING

UM Hosts ICREPS Meeting

The Department of Kinesiology and Sport Sciences welcomed nine dignitaries for the 2015 meeting of the International Confederation of Registers for Exercise Professionals (ICREPS) held in the Newman Alumni Center. Leadership representation from Australia, Belgium, Canada, Ireland, New Zealand, South Africa, UAE, UK, and the United States met for the purpose of idea exchange and global competency standardization in the field of exercise science. Dr. Brian Biagioli served as the representative of the United States Registry (USREPS) as a current board member for the US Coalition on Registration of Exercise Professionals (CREP). The meeting was an important step in the future of US exercise professionals as the standards used in the US were submitted for a 2015 review to assess the potential portability of credentials from the United States to other countries using registries for exercise professional roles. The application and documentation of evidence of standard alignment to a Global Standards Template was accomplished by an extensive mapping process completed by Dr. Biagioli and his graduate student Trey Watson. The mapping documents were submitted earlier in 2015 to an international third party review panel for determination of standard compliance. In the meeting a report was provided by the lead reviewer that the US has met the Global Standards for international portability. According to Dr. Biagioli, "This is an important step in aligning both national and global standards and recognizing those exercise professionals who have been properly trained and assessed for competency in their field of practice."

Dr. Signorile Presents Research at the International Association of Yoga Therapists Conference

The premier yoga therapist research conference in the world is held each year at the Kripalu Center for Yoga and Health in Stockbridge, Massachusetts, September 28-30. The invited speakers included researchers from the National Institutes of Health, Colorado State University, Vanderbilt, UC San Diego and Harvard Universities and from countries as far away as India and Japan. This year Dr. Joseph Signorile of the Department of Kinesiology was invited to present research completed at the Max Orovitz Laboratories over the past three years on the modification of specific yoga poses and sequences to target the needs of special populations. The invitation included presentations at both the pre-conference and the conference itself. The pre-conference lecture was entitled "Muscle Activation Analysis for Yoga Interventions" and examined the differences in muscle utilization patterns during specific poses and by experience and fitness levels of practitioners. The conference presentation expanded upon the Laboratory's unique concept of modifying yoga workouts for special populations. The presentation, entitled "The Efficacy of Yoga as an Intervention for Older Fallers and Patients with Parkinson's Disease", reported our successes in designing yoga programs that successfully addressed balance and other movement-related issues that face these two groups of individuals. In collaboration with Kiersten Mooney and her team from Green Monkey Yoga, the laboratory continues to explore new strategies for modifying classic yoga practices to for prevention, treatment and rehabilitation.



Athletic Training Student Spends the Summer Working for the Denver Broncos of the NFL



Written by Kyle Hernden, Class of 2017 Athletic Training Major –
My preseason athletic training internship with the Denver Broncos was the best experience of my life. After applying for the position for the second year in a row, I was given an interview and eventually offered the position. I immediately accepted the offer and never looked back. I was fortunate enough to work with the Broncos during OTA's (spring practices) before training camp officially started, which gave me a great idea of what training camp would entail. Once training camp began, myself and 3 other summer interns worked over 12 hours a day for 5

weeks. Our day mostly consisting of setting up the athletic training facility and practice fields for treatments and practices. While this may seem overwhelming to some, the genuine relationships built with both the staff and athletes made the blood, sweat, and tears worth it. My favorite experience was working the preseason games, because it was incredibly gratifying to see the injured athletes you work with throughout camp get back to playing the game they love. Additionally, the experience of being on the field with 50,000 plus people watching is nearly indescribable.

While working with one of the best athletic training staff's in the league, I learned something new and different every day. That experience has boosted my athletic training knowledge to a new level. Still, it made me hungry to return to Miami to continue to gain the knowledge to move my career towards a permanent stay at that level. My advice for individuals seeking a similar position (whether in Athletic Training, Sports Administration, Exercise Physiology or anything that the Kinesiology department can lead you to) is to prepare for an invaluable experience, but be ready to earn your sleep each night.



High School Scholars Participate in Exercise Physiology Research at the Max Orovitz Laboratories

This summer three high school honor students had the opportunity to work as research assistants at the Max Orovitz Laboratory complex of the Department of Kinesiology and Sport Sciences under the mentorship of Dr. Joseph Signorile. Two students, Ms. Karla Cejas and Ms. Samone Cowart were placed with the laboratory as part of the University of Miami's Howard Hughes Medical Institute Research Program.

Karla was born and raised here in Miami, FL. She is a rising senior who attends Immaculata-LaSalle High School in Coconut Grove. She enjoys participating in her school's drama productions, serving on the student council meetings, and planning pep rally events, among other activities. Karla was inducted into her school's JFK National Honor Society chapter as a sophomore. She is also a member of Rho Kappa (Social Studies Honor Society), English Honor Society, Thespian Honor Society, and Spanish Honor Society. Given her interest in the physical sciences, the Neuromuscular Movement and Active Aging laboratory and the Sports Medicine and Movement Analysis laboratory in the MO complex provided an ideal research experience.

Samone is a senior in the Forensic Science Academy at Law Enforcement Officer's Memorial High School. Her classwork and extracurricular activities have provided her with a strong background in a variety of disciplines including: Criminal Justice Operations, Psychology, Forensics, Chemistry, Genetics, Anatomy, and Physiology. She has also worked with technicians from the City of Miami Police Department and Miami-Dade County forensic labs analyzing crime scenes, introducing evidence in court cases, and being an integral part of a case's development. As was the case with Karla, her concentration on the physical sciences made the Max Orovitz Laboratories an excellent choice for her summer research experience.

Karla and Samone have worked with three Doctoral students during their research experience. The primary line of research, which constituted the theme for their poster presentation and research paper, was an examination of cable versus standard resistance training as targeted exercise interventions to improve older persons' independence and neuromuscular performance. This study was supervised by Anoop Balachandran, a doctoral student and the research coordinator in charge of summer internships. In addition, they were able to learn electromyographical techniques through their work with Nicole Rendos on her doctoral dissertation examining the relationships between specific muscle firing patterns and running efficiency in distance runners. They have also worked with Sam Becourtney, an undergraduate KIN major working on his senior honors project, assessing post-activation potentiation in male and female students as the result of heavy squatting exercises.

Renu Sara Nargund's road to the Max Orovitz Laboratory was quite different. Renu is a senior at East Brunswick High School in New Jersey, and an athlete participating in swimming, track, and the study of classical Indian dance. In addition to her participation in athletics and classical dance, Renu has also implemented a number of programs at her high school that help students with special needs learn critical life skills. This work has recently gained recognition by the New Jersey Department of Education. In 2014, she represented her school in the State Science Olympiad tournament and ranked in the top ten for all events.



Selected members Max Orovitz summer research staff from left to right include: Maria Carolina Massoni Martins, Amanda Luiso, Dr. Joe Signorile, Samone Cowart, Renu Sara Nargund, Christopher Bailey, Karla Cejas, and Anoop Balachandran.

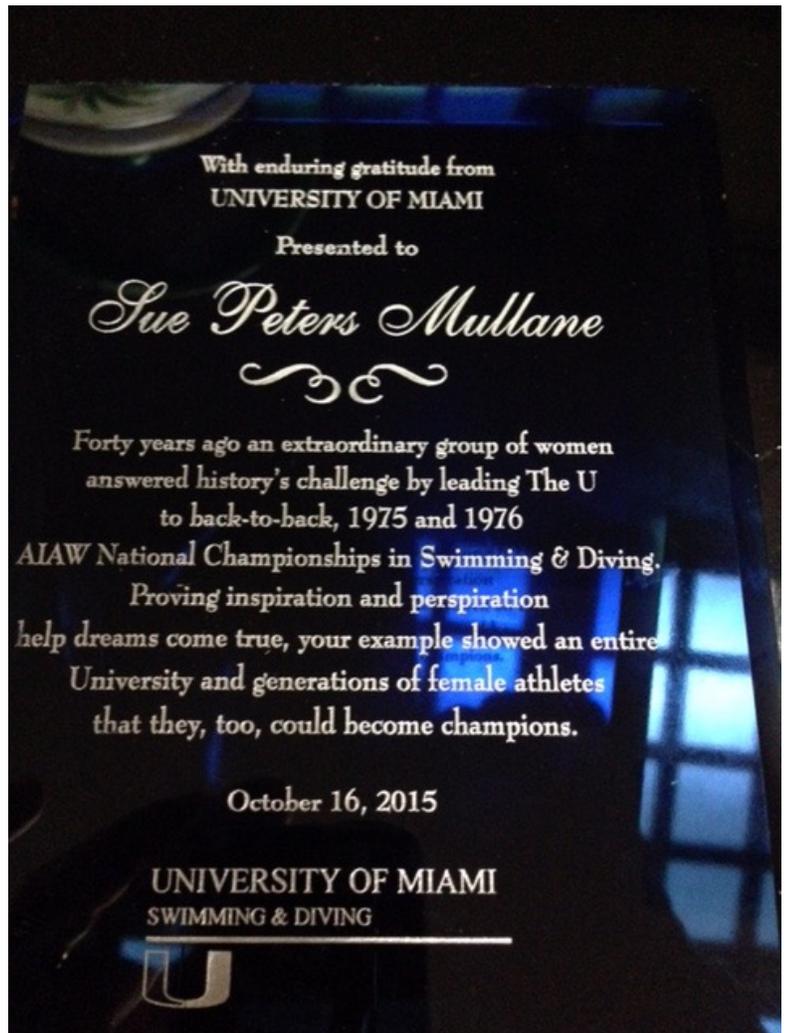
She has been working with Drs Signorile and Eltoukhy comparing muscle utilization patterns (EMG) and joint movement patterns (kinematics) while performing exercises using a cable machine versus a standard plate machine. During the process, she learned to collect and analyze EMG and kinematic data to allow an in depth understanding of how selective use of these machines might allow more exacting exercise prescriptions for athletes or specific patient populations. Given her demonstrated expertise, she is now a collaborator on a project using EMG and movement analysis to examine the effects of stance during cable training.

During their internships, these students have developed an appreciation for the true nature of exercise prescription and the importance of developing valid diagnostic methods to truly assess the needs of specific populations; a concept that regularly eludes all but the most sophisticated researchers applying exercise as a clinical intervention. Given their work in the Max Orovitz Laboratory, we expect that these talented students will be included on both referred articles and national and international scientific meetings.

Dr. Sue Mullane Honored for Diving Career

In the early 1970's, as Kentucky State AAU Champion and High School All American diver, native Louisvillian Sue Peters Mullane was headed to another university in Florida to pursue her diving career, while she studied law. However, her coach-to-be changed his plans and went to another university, and so did she. By way of a family friend, Dr. Mullane's dad heard that Miami was building a women's swimming program. Legendary head swim coach Bill Diaz made contact with the family friend, and she was encouraged to come to the University of Miami. That was in 1971 when she first stepped foot on campus sight unseen, and she has been here ever since. Dr. Mullane is currently a professor in the KIN department and Program Director for the undergraduate Sport Administration program. As a graduate student and GA at UM, she was also privileged to work under the tutelage of then Women's Athletic Director, Isabella Hutchinson, who is acknowledged as one of the pioneers of collegiate women's sports administration.

In her role as a professor, Dr. Mullane teaches many student-athletes, and enjoys telling them about the early days of UM's women's athletics. As a student-athlete before Title IX, there were no scholarships for women, but in her senior year, she was awarded one, as the University of Miami was the pioneer in this area. Dr. Mullane recalls that in the early years, the small group of girls would literally "recruit" in the residence halls. One of her fondest memories was defeating the University of Florida Gators in Gainesville, when the Gators had a full contingent of swimmers, and Miami had only six girls, including Dr. Mullane and one other diver. The same six girls competed in the AIAW National Championship in Moscow, Idaho, later that year, and placed 19th. The following year, with a larger team and a national reputation, they were runners up in the National Championship. All this hard work and perseverance resulted in the women's swimming teams winning back to back National Championships in 1975 and 1976. Although she graduated in 1975 (from the School of Education), Dr. Mullane and the others paved the way for these accomplishments. At the recent Hurricane Swimming and Diving Team Reunion, and dedication of the Bill Diaz Wall of Fame, she and the other women who participated in the early days were acknowledged and Dr. Mullane received a beautiful plaque pictured above.



O Que eu Fin em Minhas Férias de Verão: Brazilian Students Experience the Research Process at the Max Orovitz Laboratories

This summer, the Max Orovitz Laboratories welcomed three students from Brazil, Taislaine Cristina Alipio, Rebeca Cota Regis, and Maria Carolina Massoni Martins, as part of that county's Scientific Mobility Program, named Science Without Borders. The program offers scholarships to undergraduate and graduate students, which allow them to study in the United States and other countries while seeking to promote the consolidation, expansion and internationalization of science and technology through the exchange of ideas and international mobility. Their internships were mentored by Dr. Joseph Signorile, Professor of Exercise Physiology in the Department of Kinesiology and Sport Sciences.

Ms. Alipio is a senior in Exercise Science and Sport at University of Sao Paulo, while Ms. Regis is a senior Physical Education student at the Federal University of Minas Gerais located at the city of Belo Horizonte in the state of Minas Gerais. Both students spent their first fifteen months in the United States at Kennesaw State University (Kennesaw; GA), where they took classes in that university's Intensive English Program to improve their conversational and writing skills. They also took the occasion to expand their studies in Exercise Science. As a result of their summer internships at the MO laboratories, Ms. Alipio and Regis have been included with Nicole Rendos, Hector H. Heredia Vargas, Matthew Romero and Dr. Signorile, as authors in the research article entitled "Differences in Muscle Activity During Cable Resistance Training are Influenced by Variations in Handle Types", currently in review by the *Journal of Strength and Conditioning Research*. Additionally, they worked with Ms. Rendos on an ongoing study examining the reliability of two isokinetic dynamometers commonly used in strength testing and rehabilitation. Among the research skills they acquired were:

- (1) preparation, collection and analysis of electromyographic (EMG) activity;
- (2) isokinetic strength testing;
- (3) oxygen consumption (VO₂) testing; and,
- (4) manuscript preparation.

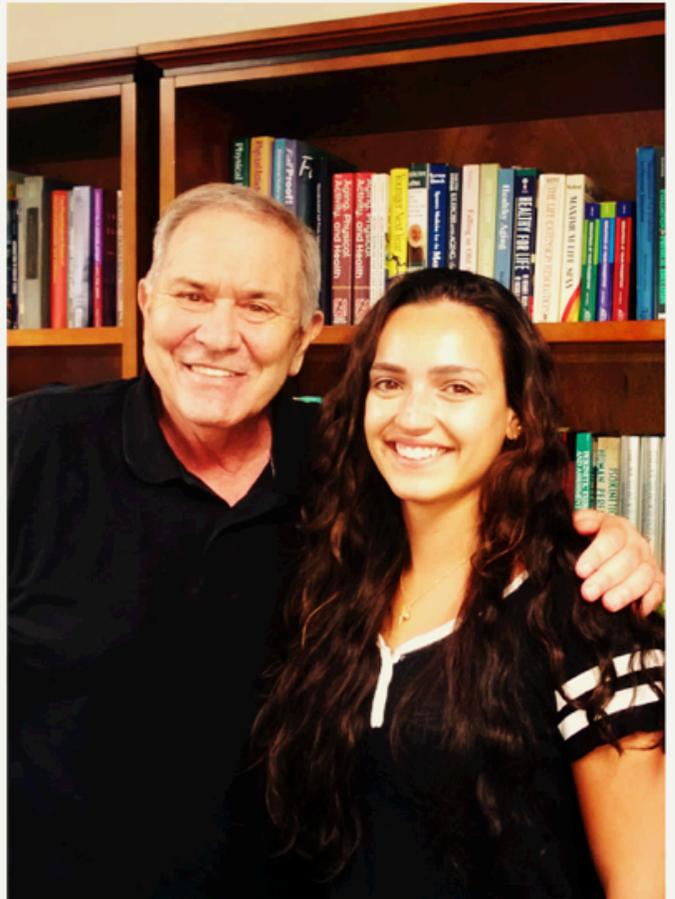


Rebeca Cota Regis, Dr. Joe Signorile, and Taislaine Cristina Alipio,

Ms. Martins came to University of Miami in Fall 2014 and after four months of English classes she began her undergraduate classes in Exercise Physiology. Toward the end of the spring semester she began her research internship at the Laboratory of Neuromuscular Research and Active Aging with Dr. Signorile and his graduate students which extended through the summer. During these months, she has worked with four graduate students on four different studies:

- Comparisons of cable versus linear weight stack training on functionality and ADL-performance in older people with Anoop Balachandran;
- Running and Muscle utilization patterns in efficient and inefficient distance runners with Nicole Rendos;
- Muscle utilization during cable and plate exercises with Jill Castanza and Nicole Rendos; and,
- Muscle utilization and caloric outputs comparing high-speed and low-speed transitions during yoga with Dr. Meng Ni.

Due to her demonstrated competence in EMG and oxygen consumption (VO_2) testing and the acceptance of a post-doctoral position by Dr. Meng at Harvard, Ms. Martins will be assuming the position of research coordinator for the last of the studies listed above. In addition to her developed proficiency in EMG and VO_2 testing, she has also developed considerable skill in movement analysis, physical function testing and exercise training in older persons, and pneumatic strength assessment.



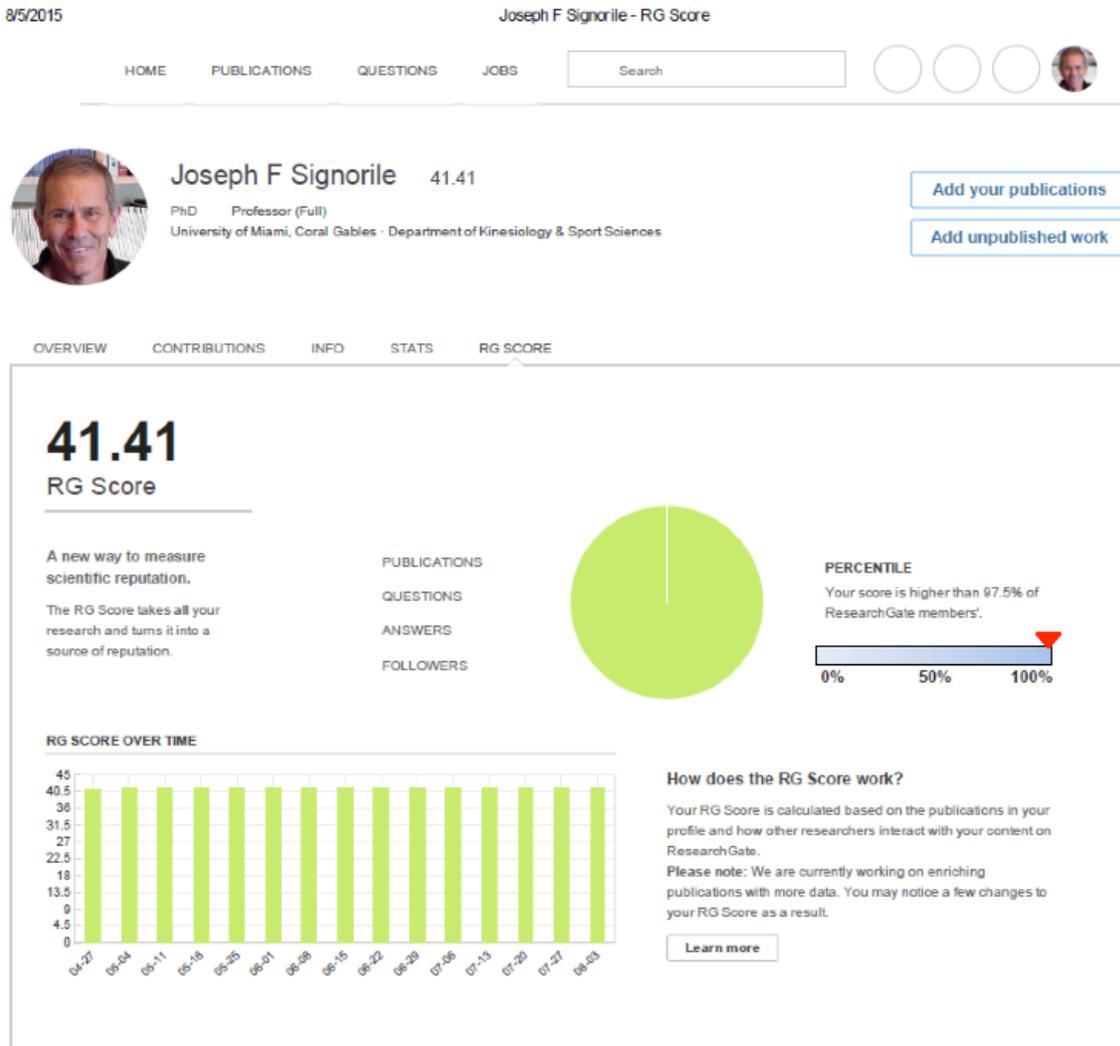
Dr. Joe Signorile, and Maria Carolina M. Martins

In examining the research skills learned and demonstrated by these students; their likelihood of appearing as co-authors on manuscripts, published abstracts, and international presentations; their newly developed understanding of statistical methods; and their evolution as technical writers; this can be considered a outstanding example of a research experience where the visiting students, the faculty, and the graduate researchers come together to maximize the benefits that can be derived from a high-level research facility. We at the Max Orovitz complex would all like to congratulate these students on a job well done.

Dr. Joseph Signorile Gains Recognition Among Colleagues

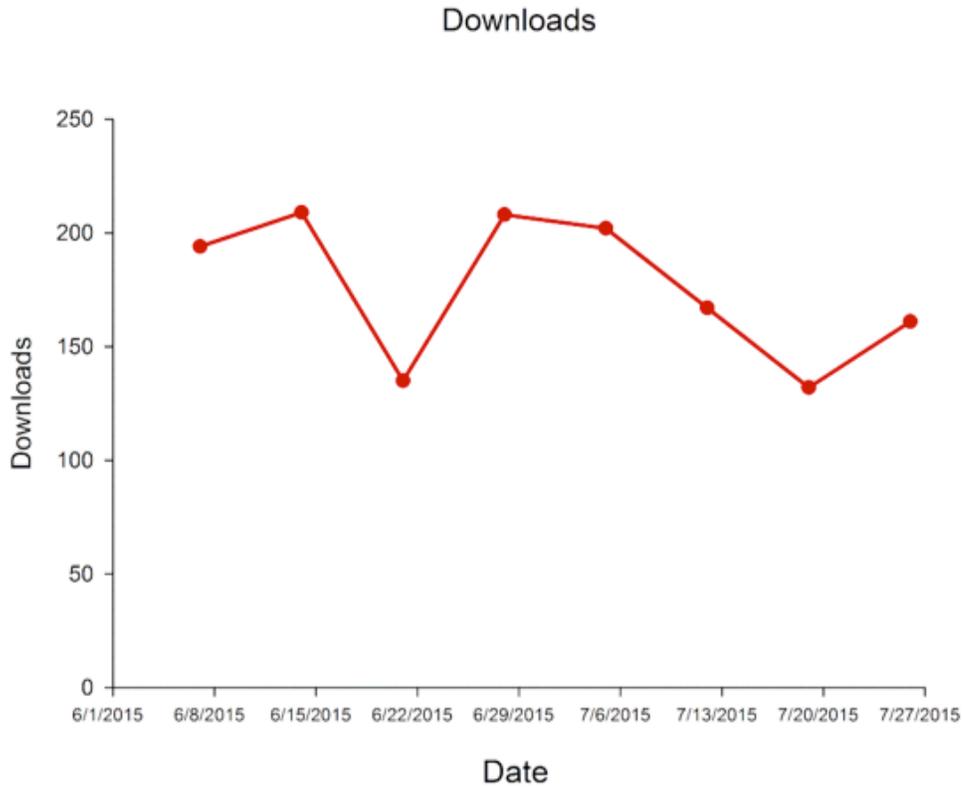
Among the factors that indicate the impact that researchers exert within their areas of expertise are certain standardized scores based on the number of publications, publication views and citations. One of the most respected websites providing these assessments is ResearchGate. ResearchGate provides an RG score based on the number of publications that the researcher has and the attention they are receiving from other researchers on the site. Across the last three months, Dr. Signorile's RG score has increased from 40.81 to 41.27. To put this in perspective, his score is higher than 97.5% of all ResearchGate members. Overall since joining the site in May of 2013 he has had over:

- 10,564 publication views,
- 8,913 publication downloads,
- 856 citations, and
- 1,560 profile views.



Over the eight-week period from the beginning of June until July 26, he has averaged 176 publication downloads per week for a total of 1408. The graph below illustrates these data.

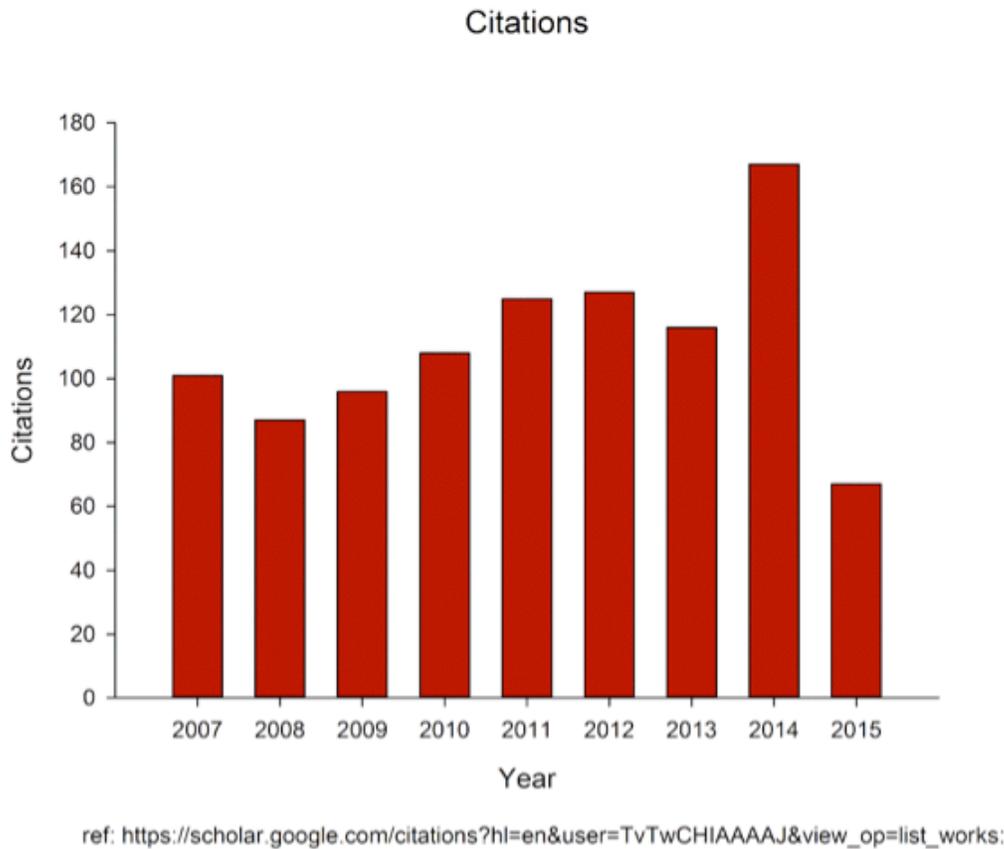
Figure 1. Downloads for June and July 2015.



Source: https://www.researchgate.net/profile/Joseph_Signorile/stats

The pattern of citation has shown a notable increase across the past seven years, with 2014 showing the highest number of citations since he accepted his position at the University twenty-five years ago. As noted by the statistics offered by Google Scholar Dr. Signorile's journal articles have been cited 1,493 times with 713 of those occurring since 2010. The pattern across the calendar years from 2007 through 2015 (incomplete) is provided in Figure 2.

Figure 2. Citations from 2007 through 2015 (to date)



Since the beginning of the calendar year, Dr. Signorile and his colleagues have published four refereed articles, have four more accepted for publication, and have an additional four in review. Since January, the team has 15 published abstracts and 18 national and international presentations at such prestigious meetings as the ACSM's 62nd Annual Meeting, 6th World Congress on Exercise is Medicine® and World Congress on the Basic Science of Exercise Fatigue, the American Geriatric Society 2015 Annual Meeting and the 6th International Congress on Schizophrenia Research.

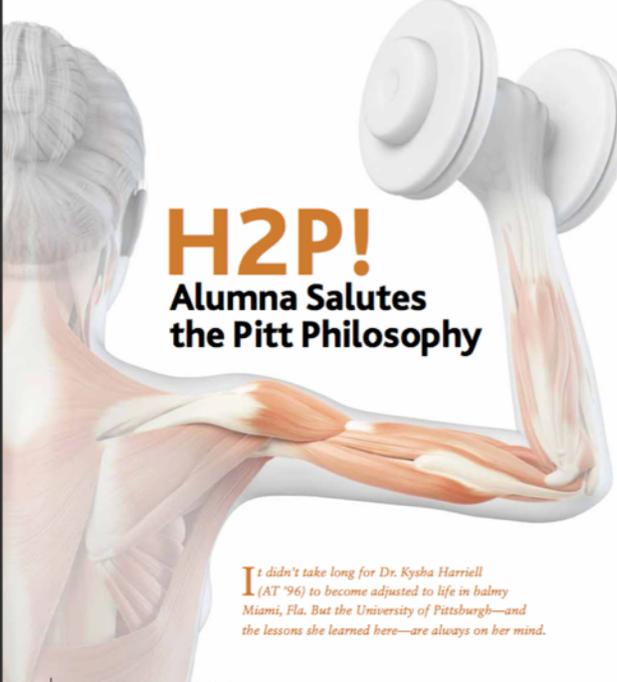
Dr. Sig, as he is called, and his research team invite research collaborations and internships at the Department of Kinesiology and Sport Sciences' Max Orvitz Laboratory Complex.

Faculty Spotlight



Dr. Brian Arwari welcomed with joy his son Leonardo on October 5, 2015.


ALUMNI PROFILE



H2P!

Alumna Salutes the Pitt Philosophy

I didn't take long for Dr. Kysha Harriell (AT '96) to become adjusted to life in balmy Miami, Fla. But the University of Pittsburgh—and the lessons she learned here—are always on her mind.

An assistant clinical professor and program director of the Department of Kinesiology and Sport Sciences at the University of Miami, Harriell follows a student-centric philosophy that she attributes to her mentor, Dr. Kevin Conley, associate professor and chair of Pitt's Department of Sports Medicine and Nutrition.

"I strive to show students that I want them to succeed, and that I will do everything I can to help them," begins Harriell.

"More than 18 years ago, Dr. Conley helped me secure an internship as an athletic trainer at the University of Miami, which eventually turned into my dream job," she continues.

"It proved to me that building positive relationships with faculty members is an important part of a student's college experience."

Conley gently reminds Harriell that she was not always the most motivated student! At a certain point, they decided together that it would be best if she take some time away from the program.

"It was a short break," Conley reports, "but when she returned, she was like a whole new person—very enthusiastic, motivated, and much more confident in her decision to pursue a career in athletic training."

"I tell [my students] that it's not who you know—it's who knows you!"

"Kysha was, and to me still remains, one of the greatest success stories in the history of our program," boasts Conley. "I'm always thrilled to see her name in professional trade publications or journals because I know she's just done something great."

With her personal experience in mind, Harriell encourages students to do their part if they want to succeed.

"I tell them that it's not who you know—it's who knows you!"

She prompts them to become student members of professional organizations, and participate in events and conferences. "More importantly," she urges, "while you're there, network, network, network!"

Harriell says that when she interviews students for jobs or graduate assistant positions, she looks to see how involved they are. "This gives me insight into their dedication and passion for their profession."

As a faculty member at the Stanford Residential College at Miami, Harriell and her dog, Patella, live on campus and interact with students on a daily basis. She serves as a resource and advocate for students, and helps plan and implement regular educational, intellectual, and cultural programs.



Dr. Kysha Harriell is assistant clinical professor and program director of the Department of Kinesiology and Sport Sciences at the University of Miami.

"It's important for students to get involved on campus," declares Harriell. "I call it 'taking care of home.'" She cites the many activities that she was involved with as a student at Pitt, including the Athletic Training student group, her sorority, and the Black Action Society.

"These organizations gave me opportunities to leave a mark," Harriell explains. "The positions I held taught me valuable organizational skills, and some of the ideas and events that I helped to create are still in place."

"Kysha is passionate about diversity and women's issues in athletic training, and is a tremendous role model and mentor for her own students," adds Conley. Harriell believes she would not be where she is today if it were not for the generosity of the people she encountered at Pitt.

"I have a genuine love for Pitt and I feel the need to make sure the current AT students have the same wonderful opportunities that I had," she declares.

"As a senior at Pitt, I was fortunate to get funded to travel to Orlando to attend the National Athletic Trainers' Association convention. It made such an impact on me, both personally and professionally. This is why I give to the NATA fund at SHRS."

Patty Kummick, director of development at SHRS, points out that Harriell not only makes a financial commitment. "Kysha meets with our students at the conference to mentor them and encourage their involvement in their professional organizations. And she's still a huge fan of Pitt athletics!"

"I can honestly say I have never been as proud of any student as I am of Kysha Harriell," Conley admits with a smile. "And more than her accomplishments in school and as an educator and administrator, she is a beautiful person as well."

14 FACETS SPRING/SUMMER 2015
FACETS SPRING/SUMMER 2015 15

Dr. Kysha Harriell was a featured Alumni in the University of Pittsburgh magazine this past spring.

Student Spotlight



Christopher Bailey, is Dr. Perry’s graduate assistant and is currently working under Dr. Signorile on a study with supplementation and exercise in the elderly. He received the 2015 Outstanding Scholar Award from the Academy because of his previous work on Chromium supplementation. He is the first University of Miami student to receive a national award from this academy.

Sport Administration graduate students Samantha Bailey and Josh Lewis volunteering at the Shane Battier Basketball ProCamp in Miami, FL.



Athletic Training students ready for UM football season opener.

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***Be sure to include
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