

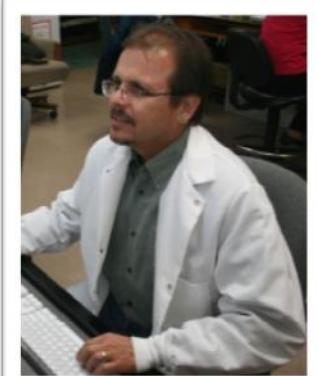
Office for Training, Research & Education in the Sciences (OTRES)

OTRES Newsletter
Spring 2012

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WE HAVE CHANGED OUR NAME: OBRT becomes OTRES!

I am pleased to announce that the **Office for Biomedical Research & Training (OBRT)** is in the midst of some exciting changes. The OBRT was founded in 2000 by Victor Rocha and has been very successful at obtaining funding and implementing programs for student training, for faculty development, and for contributing to the educational mission of CSUSM (a listing of our key projects and collaborations can be found at our website). We have been deeply involved in this trio of activities (Training, Research and Education) yet the OBRT name didn't quite reflect the breadth of this hard work. In addition, although we have contributed to student training and faculty development in areas outside the 'biomedical' sciences, this was not fully acknowledged in our name. To remedy this situation, the leadership team has decided to change our name to the **Office for Training, Research & Education in the Sciences (OTRES)**. It needs to be noted that "the Sciences" is broadly considered here, and includes the biomedical sciences, the physical and natural sciences, and the social sciences (and for those who may have missed it, tres -- the Spanish word for three -- recognizes the three-pronged emphasis on Training, Research & Education).



Keith Trujillo
OTRES Director

Beyond the name change, we are growing. New members have joined the OTRES team, and we are in the process of hiring others who will help administer the growing list of programs with which we are involved. And we are expanding and renovating our physical space to accommodate the growing staff. Please pardon our dust and disruption (hopefully minor) as we go through these renovations.

Our mission will not change. As always, we are committed to increasing diversity in science and academia, and to making CSUSM the institution of choice for students and faculty interested in the sciences. We are grateful to Victor Rocha, the current Associate Director of OTRES (and 'semi-retired' through the Faculty Early Retirement Program) and to Dick Bray (officially retired, but still an important contributor to OTRES) for their hard work in establishing the programs that remain the core of work at OTRES.

We look forward to our continuing work with faculty and students across the campus. Our student training programs and our support of faculty research grants includes participants from the College of Science and Mathematics; the College of Humanities, Arts, Behavioral and Social Sciences; and the College of Education, Health and Human Services. We wish to remain a resource for students and faculty from all of the colleges. Please don't hesitate to let us know if you have an idea for a grant, a collaborative venture or anything else encompassed by our mission.

2011 Student Highlight: Daniel Wambua

Daniel Wambua started a doctoral program in Virology at **Harvard Medical School** fall 2011, where he hopes to work on AIDS research. Daniel started his biomedical science career at the University of Nairobi in Kenya. In 2007 he and his family moved to the US in search of better educational opportunities. Daniel enrolled at

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Student Highlight: Daniel Wambua

Mt. San Jacinto Community College and later transferred to CSU San Marcos. After transferring to CSU San Marcos, Daniel was awarded the LSAMP Transfer Award and in summer of 2009 he was awarded the Minority Access to Research (MARC) Fellowship. He soon started working in the laboratory of Dr. Bianca Mothe using modern technologies to identify specific alleles involved in the immune response of rhesus monkeys. This work will help define an animal model that will be useful in better understanding HIV infections and vaccine development. In summer 2010 Daniel participated in the Graduate Experience for Multicultural Students summer program at the University of Colorado Denver. At the summer program he examined the regulation of viral gene expression by viral microRNAs using the murine gamma herpesvirus-68 as a small animal model which mimics the well studied human cancer causing viruses Epstein-Barr virus and Kaposi's sarcoma-associated herpes virus. Daniel received an award for giving an outstanding presentation at the Annual Biomedical Research Conference for Minority Students (ABRCMS, 2010). His outstanding academic performance and dedication to research qualified him to be a teaching Assistant for Comparative Animal Physiology lab, at CSU San Marcos. Daniel graduated from CSU San Marcos May 2011. We wish Daniel the best in his future studies and career!



Daniel Wambua

Student Research Competition 2011

In spring 2011, twenty RISE and MARC Scholars participated in the CSU San Marcos Student Research Competition. Five of our students were finalists in the campus competition: Andrew Cooper, Eleuterio Limas, Dalziel Soto, Marianne Klumph, and Anna Hood. These five students attended the 25th Annual California State University Student Research Competition at CSU Fresno. Dalziel Soto received 1st place in the Health, Nutrition and Clinical Sciences. Marianne Klumph received 2nd place in the Behavioral and Social Sciences-Graduate Level.

Big thank you to all the mentors who supported these students!

We are now getting ready for the 2012 Student Research Competition



Spring 2011 Graduates

Last May 2011, eight OTRES RISE and MARC students graduated from CSUSM. Five students graduated with a Masters degree: Letitia Jones, Biology, MS., Michael Santana, Mathematics, MS., Shawn Bates, Psychology, MA., Ramona Gonzales, Biology, MS and David Illingworth, Psychology, MA. Three students received a bachelors degree: Jacqueline Engel, Biology, BS., Eleuterio Limas, Psychology, BA., and Daniel Wambua, Biology, BA.

All eight students conducted research at CSU San Marcos and presented their findings at various scientific conferences.

We are proud to announce that all eight students are on their path to becoming important role models for diversity in science and education within their field.

- ❖ **Daniel Wambua** (MARC), PhD Harvard University
- ❖ **Shawn Bates** (RISE), PhD Texas A & M
- ❖ **Letitia Jones** (RISE), PhD University of Rochester
- ❖ **Michael Santana** (RISE), PhD University of Illinois at Urbana-Champaign
- ❖ **Jacqueline Engel** (MARC), PhD University of Utah
- ❖ **David Illingworth** (RISE), PhD University of Oklahoma
- ❖ **Eleuterio Limas** (RISE), MA CSUSM
- ❖ **Ramona Gonzales**, (RISE), High School Teacher

OTRES Students at Summer Research Programs

In summer 2011, fourteen OTRES scholars were invited to participate in summer research programs around the country. Most of these programs were nine to ten weeks long. The majority of the programs provided a stipend, on-campus room and board, and travel. OTRES funded a few of these students. In most of these programs students create and work on a research project of their own. While working on it, students learn new scientific techniques and how to design experiments, analyze results, formulate hypotheses, and keep a lab notebook. Each program wrapped up with a poster symposium.

We are currently working with our students on their 2012 applications to summer research programs.



Shirlee Moore, RISE Scholar
Psychology Major

"My summer experience at the University of Florida was a great firsthand account of what life as a graduate student would feel like. I was able to get hands on research experience in the lab of a highly successful professor as well as the opportunity to attend seminars aimed at helping me along on my road to a PhD. It was a great opportunity to network with other PhD hopefuls. I learned that research is indeed a full time job and should be treated as such."

"MIT has a saying that says studying at MIT is like drinking water out of a fire hose. This saying did not fall short with my experiences there. Though tough, I came out of the MSRP with a greater knowledge of how research works, many important connections with peers and researchers alike, and an overall invaluable experience that could never be replaced or forgotten."



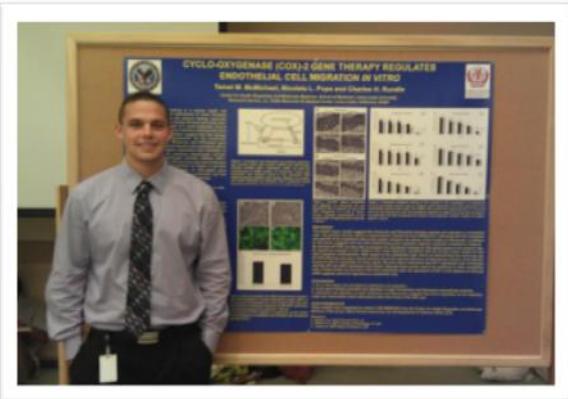
Dalziel Soto (Right)
MARC Scholar
Kinesiology Major

OTRES Students at Summer Research Programs Continued

"I had the privilege of conducting a research project in Dr. Laurie A. Stargell's lab at Colorado State University. There, I met many people that I am still in contact with - both fellow aspiring scientists, as well as veterans to the field. I not only gained critical presentation skills in written, oral, and poster format, but also learned and mastered countless molecular biology laboratory techniques. Most importantly, I learned the value of teamwork and collaborating with others to reach a common goal."



Aaron Hernandez (2nd from the right)
LSAMP Scholar, Biology Major



Temet McWilliams, RISE Scholar
Biology Major

"Participating in my summer research program at the University of California Berkeley was a very fulfilling experience- both personally and educationally. In addition to exploring Berkeley and the bay area, many great experiences came from working on my summer project in the lab of Dr. Nipam Patel, analyzing the function of Hox genes in Parhyale. Going away to another institute gave me the opportunity to conduct research in a different concentration of biology, learn new laboratory techniques, and get a better understanding of what leaving for graduate school may be like. This REU program provided me the opportunity to closely interact with students with similar goals as myself and to also learn about diverse research topics presented by UCB faculty."

"My summer research experience consisted of the Health Disparities Research Undergraduate Training Program (UTP) at Loma Linda University School of Medicine, Center for Health Disparities and Molecular Medicine (CHDMM). There, I worked closely with Dr. Charles H. Rundle at the VA medical center in Loma Linda. I gained an immeasurable amount of knowledge that not only allows me to succeed in my current goals but also exposed me to what it really takes to succeed in the scientific community. Going to Loma Linda University and working with Dr. Rundle was an experience of a lifetime; one that I am truly grateful for and will never forget."



Joanna Malfavon-Borja (5th from left, front)
MARC Scholar, Biology Major

Spring 2012 Seminar Series

February 2

Dr. Jaime A. Pineda, University of California San Diego

February 16

Dr. Angelica Rocha, CSU San Marcos

March 1

Dr. James Jancovich, CSU San Marcos

March 8

Dr. Adam Engler, Sanford Burnham

March 15

Dr. Denise A. Chavira, CSU San Marcos

March 29

Dr. Andres Aguilar, University of California Merced

April 12

Dr. Cynthia Crawford, CSU San Bernardino

April 26

TBA

Seminars are open to all
campus community

Markstein Hall 106
4:00-5:30

Light refreshments are served

Other Important Dates

February 24th

Student Research Competition- Oral Presentations

March 9

Student Research Symposium - MiraCosta Community College

April 13

Student Research Symposium- Palomar Community College

Office Information

Office for Training, Research & Education in the Sciences

Office Hours

Monday-Friday
8:00-4:30

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