For the past three years, I have provided you a report summarizing the activities and outputs of the UMSAEP for the prior year. This report reflects the unprecedented challenges the program faced in 2020. For a program that is built on international faculty exchanges, 2020 was a year unlike any other in the 34 year history of this program. The pandemic and resulting ban on international travel meant that of the 20 UMSAEP 2020 awardees slated to travel in 2020, one traveled at the end of 2019 and one traveled to UWC but had her trip was cut short in March 2020. In addition, there were 4 other prior UMSAEP awardees also scheduled to travel in 2020. None of them traveled. As a result, most of the collaborative projects set to commence in 2020 had to be postponed. Nevertheless, as this report outlines below, many past UMSAEP participants continued their collaborations and produced remarkable results especially in light of the pandemic.

On a positive note, the pandemic prompted us to consider how to promote international collaborations in a world without travel. I had many discussions with UWC International Director Umesh Bawa and then with MU’s Mary Stegmaier and Ghent’s Annelies Verdooolaege. We held two webinars over the summer to explore how we might use Zoom and other technologies to conduct virtual research collaborations and enhance the internationalization of our curriculum. The discussions we had led to a number of positive outcomes. MU has recently signed a virtual student exchange MOU with Ghent University and will be signing a similar MOU with UWC. Over the summer, we announced a call for trilateral virtual research or teaching proposals and in September, awarded 8 modest grants to teams of UM, UWC and Ghent professors. Most of the funding for these grants came for UWC and Ghent. None of these grants involve travel.

As in past years, I reached out to all 2020 UMSAEP awardees as well as past awardees and requested updates on 2020 activities with a UMSAEP collaborator. I reached out to 122 UMSAEP participants and received response from 93. Of these respondents, 6 reported that they had retired or left either UM or UWC. So this report reflects the significant outputs of the 87 still working at UWC or for UM. It should be noted that many mentioned the difficulty of doing collaborative research during a pandemic.

**Publications**

UM and UWC faculty reported 1 book and 1 book chapter accepted for publication, 3 book chapters and 26 articles published during 2020. 10 articles were submitted during 2020 and were still under review or revision. In addition, UMSAEP participants reported 22 manuscripts were in progress.

**Conference papers/presentations**
With the ban on international and limited domestic travel, the conferences that were held were virtual. UMSAEP participants reported 9 conference presentations. This does not include a very successful seminar series entitled “Biology without Borders” organized jointly by MU’s David Schultz of the Division of Biological Sciences and UWC’s Stephen Boatwright of the Department of Biodiversity and Conservation Biology. In August, MU’s Candace Kuby and UWC’s Vivienne Bozalek hosted the first of a 13 part webinar series entitled “Post Philosophies and the Doing of Inquiry”. This series features prominent scholars from around the globe and has attracted an international audience of scholars and grad students.

Grants

I spent many hours early in 2020 working with MU’s Kerry Clark, CAFNR’s Director of International Programs and UWC’s Ndiko Ludidi, who was the acting director of UWC’s Center of Excellence in Food Security, on a grant application to the US Embassy in South Africa. Although we put together an excellent application that included Lincoln University and several other SA universities, we were not funded. We did, however, connect several MU professors with other potential strong South African collaborators and generated some excellent ideas for future collaborations. In the fall, I spent even more time pulling together an interdisciplinary UM and UWC team to work with other SA researchers on two NIH grants. Despite many hours of zoom meetings and significant time gathering data and drafting sections of a massive grant application, UWC ultimately ran out of time to complete the NIH DS-1 Africa Research Hub application. This application had to come from an African institution. UMKC’s team led by Jerry Wyckoff, of the School of Pharmacy, did submit a NIH DS-1 Africa training grant application ($350K for up to 5 years). We won’t learn until late this year if that application will be funded.

UM and UWC faculty reported submitting 3 other grant applications that were not funded. 3 more applications are under review including one from MU’s Trent Guess and UMKC’s Antonis Stylianou with their SA collaborators for a $3.5 million NIH grant. The following grants were awarded in 2020 based on their UMSAEP funded work:

- UWC’s Simone Titus- SA National Research Foundation -R595,000
- UMSL’s Timothy Makubuya - World Anti-Doping Agency- $20,000
- UWC’s Marshall Keyster- National Research Foundation -R100,000
  
  Grain SA – R449,067
  Centre of Excellence in Food Security – R420,000
- UWC’s Chris Arendse- SA ARMSCOR – R 1.1 million
- UWC’s Takalani Muladzi-Masuku -National Research Foundation (NRF) Thuthuka Institutional Grant, 2020 - R380, 000.00
- UWC’s Priscilla Baker -South African Maritime Safety Authority (SAMSA)- R300,000

Patent

S&T’s Lana Alagha reported that her work related to her UMSAEP funded project led to Patent: WO2020236550- Task-Specific Ionic Liquids for Selective Separation and Recovery of Rare Earth Elements
Student Opportunities/ Capacity Building

The ban on international travel also adversely affected the ability of UWC and UM students to travel. No Henry Mitchell scholar traveled nor did any UM study abroad groups go to UWC. To promote the internationalization of UM courses, at the webinars noted above and in other settings, I encouraged UM faculty to consider adding a guest lecturer from UWC or Ghent to existing course to provide UM students a more diverse perspective to the subject being taught. In the past, several UM professors have used UWC guest lecturers or even partnered with UWC colleagues to offer a joint course to UWC and UM students. With Zoom that is much easier. I used Zoom this summer to team teach a comparative criminal justice course with a UWC colleague for both UWC and MU law students. We ran the course almost exactly as we did with our in person course the previous summer at UWC. Although the overall experience for the students wasn’t quite as rich as being physically present together, the students gained tremendously from learning about the SA system, listening to the perspectives of the UWC participants and then discussing and debating the advantages and disadvantages of both systems. Several joint courses are in the works for this year.

UM has played a major role in helping to build capacity at UWC since the inception of this partnership. This continued in 2020. A few examples. MU’s Maria Fidalgo co-supervised two of UWC’s Ed Pool’s students who earned their Ph.D. in 2020 and is currently working with another of Prof. Pool’s Ph.D. students. MU’s David Mendoza-Cozatl co-supervised, one of Prof Marshall Keyster’s students, Arun Gokul, who did his post-doc in Prof. Mendoza-Cozatl’s lab. Dr. Gokul recently accepted a faculty position at the University of the Free State in South Africa. Prof. Mendoza-Cozatl is currently co-supervising another of Prof. Keyster’s Ph.D. students. MU’s Laura Schopp co-chaired a dissertation committee for one of Deputy Vice Chancellor Jose Frantz’s students as well as serving as an outside reviewer on a number of dissertations and master’s theses at UWC over the past year.

Fulbright Awards

MU’s Michelle Teti was awarded a Fulbright to go to UWC in 2021 and UWC’s Chris Arendse was awarded a Fulbright to come to MU this year. Both have been actively involved in the UMSAEP for several years.

Conclusion

This report highlights the major outputs of the UMSAEP in 2020. To see trip reports that describe the broad range of UMSAEP funded projects across a variety of academic disciplines, go to the UMSAEP website https://www.umsystem.edu/president/southafrica.