International Programs in the Department of Chemistry and Chemical Biology

SHORT TERM EDUCATION PROGRAMS

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SHORT-TERM INTERNATIONAL PROGRAMS IN CCB

1. Research/collaboration driven – All programs have a component of research associated with them.

2. Creating new opportunities for Rutgers students to experience science on a global scale.

3. Student recruitment.

4. Challenges: language (culture)

Collaborating Rutgers Units:
- Program in American Language Studies (PALS)
- Rutgers China Office
- Global Programs – contracts and MOUs
- Global Services – visa processing and visa requirements
- Other Academic Departments
UNDERGRADUATE STUDENT EXCHANGE PROGRAM:

• 10 – 15 Jilin senior undergraduate students come to Rutgers for a 5-month, non-credit program during the summer and Fall semester.
• 3 – 5 Rutgers students go to Jilin University for 6 weeks during the summer.
Program started in 2012:
RUTGERS-JILIN CHEMISTRY PROGRAM
( Incoming )

Part I: Summer (3 weeks in August)
• Intensive English and Cultural Orientation (China Office)
• Chemistry Journal Club
• Laboratory Safety Training

Part II: Fall Semester
• Academic Classes
  English for Chemistry
  Technical Writing (PALS)
  Chemistry Conversation Groups
  Rutgers Chemistry Class
• Laboratory Research Experience (Chemistry, Chemical Engineering, Materials Science and Engineering, Biomedical Engineering, etc.)
RUTGERS-JILIN CHEMISTRY PROGRAM
(outgoing)

Summer exchange for Rutgers students
• 6-week research experience
• Chinese language classes
• Seminar lecture series with Tang students

2014 Summer exchange students with Jilin University faculty.

2015 Summer exchange students with Chi Jing and Tang Aoqing class.
RUTGERS-JILIN CHEMISTRY PROGRAM

OUTCOMES:
• Strengthening ties between universities
• Graduate student recruitment
• Internationalizing the chemistry curriculum
• Working towards expanding, i.e. 3+2 program

Prof. Robert Hayes, 2017 Rutgers exchange students and 2017 RU-Jilin students at Jilin University.

Prof. John Brennan with 2016 Jilin student
PAN-AFRICAN MATERIALS INSTITUTE (PAMI)

- Interdisciplinary/transdisciplinary center
- Education, research and innovation that address African needs
- Training for critical mass of students/scholars across West and Central Africa (Senegal, Ghana, Nigeria, Cameroom)

*Participating International Universities:*
  Princeton University; Arizona State University; Rutgers University; Stanford University; Worcester Poly Institute; Tufts University: University of Sao Paulo and Blaise Pascal University.

Prof. Tom Nosker and Dr. Olaoluwa Ogunkunle, 2017 PAMI Fellow.
PAN-AFRICAN MATERIALS INSTITUTE (PAMI)

Outcomes:

• Creating partnerships that place Rutgers as significant player in the development of science and innovation across the continent.
• Helping to develop the level of science education in targeted African countries.

CCB alumni Brian Moore at the Centre for Scientific and Industrial Research, Pretoria, South Africa.
<table>
<thead>
<tr>
<th>CURRENT PROGRAMS</th>
<th>Numbers</th>
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<tbody>
<tr>
<td>Jilin University, China (undergraduate)</td>
<td>2015-16</td>
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<tr>
<td></td>
<td>15</td>
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<tr>
<td>Univ. Sao Paulo, Brazil (undergrad)</td>
<td>2</td>
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<tr>
<td>Pan African Materials Institute, Nigeria (graduate/scholar)</td>
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<tr>
<td>King Abdulazeez University of Science and Technology, KAUST (undergraduate partnership with PALS)</td>
<td>15</td>
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Programs in development:
Aarhus University, Denmark (undergraduate summer program, graduate exchange)
University of Sao Paulo, Brazil (undergraduate/graduate program)