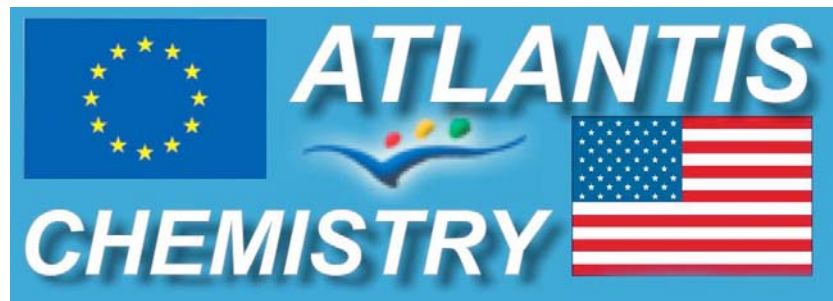




**Atlantis**



**An international exchange program  
for undergraduates majoring  
in chemistry from the  
United States, Ireland and Germany**

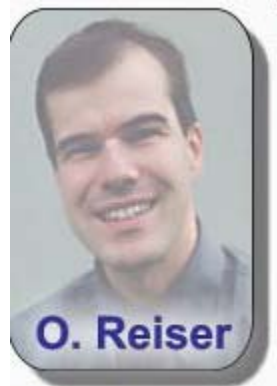
S. M. Lunte<sup>1</sup>, C.E. Lunte<sup>1</sup>, J. Aube<sup>1</sup>, F. Regan<sup>2</sup>,  
P. James<sup>2</sup>, H. Vos<sup>2</sup>, R. Gawley<sup>3</sup> and O. Reiser<sup>4</sup>

<sup>1</sup>University of Kansas, <sup>2</sup>Dublin City University, <sup>3</sup>University of  
Arkansas and <sup>4</sup>University of Regensburg

# The Founders

## Professor Oliver Reiser

(Institut für Organische Chemie, University of Regensburg)



Principal investigator

## Professor Han Vos

(School of Chemical Science, Dublin City University)



## Professor Jeff Aube

(Departments of Medicinal Chemistry and Chemistry, University of Kansas)



## Professor Robert Gawley

(Department of Chemistry and Biochemistry, University of Arkansas)



# Participating Institutions

- University of Regensburg, Germany (lead)
- Dublin City University, Ireland
- University of Kansas, USA
- University of Arkansas, USA



# University of Regensburg

- Founded in 1962
- Student population approx 17,000
- 23 faculty in Chemistry and Pharmaceutics
- Strength in organic, medicinal and bioanalytical chemistry



# Regensburg

- Founded in 179 AD
- Located in the heart of Bavaria on the Danube
- Population approximately 131,000



# Dublin City University

- Founded in 1980
- Student populations approximately 11,500 students
- Approximately 20 faculty in chemical sciences
- Multidisciplinary and international programs
- Strength in chemical and health sciences and analytical chemistry





# Dublin

- Located in Dublin, Ireland  
(Greater Dublin Area: pop. 1.6M)
- Founded in 841 AD
- Voted “best capital city to live in” in  
European-wide 2003 survey by BBC



# University of Kansas



- Founded in 1866
- Student population is approx. 30,000
- Approximately 50 faculty in Chemistry and Pharmacy
- Multidisciplinary and international programs
- Strengths in organic, medicinal and bioanalytical chemistry
- Previous existing collaborations/exchange with DCU in analytical chemistry





# University of Arkansas



- Founded in 1871
- Student population approximately 19,000
- Approximately 30 faculty in chemistry and biochemistry
- Multidisciplinary and international programs
- Strengths in organic and analytical chemistry





# Atlantis Program

- Funding for one year of study abroad for undergraduates
- Students obtain a dual Bachelor Degree in Chemistry (Atlantis Chemistry Degree) between the University of Regensburg or Dublin City University and the University of Kansas or the University of Arkansas
- The degree allows the direct admission to PhD programs in Ireland, the US or in Germany\*

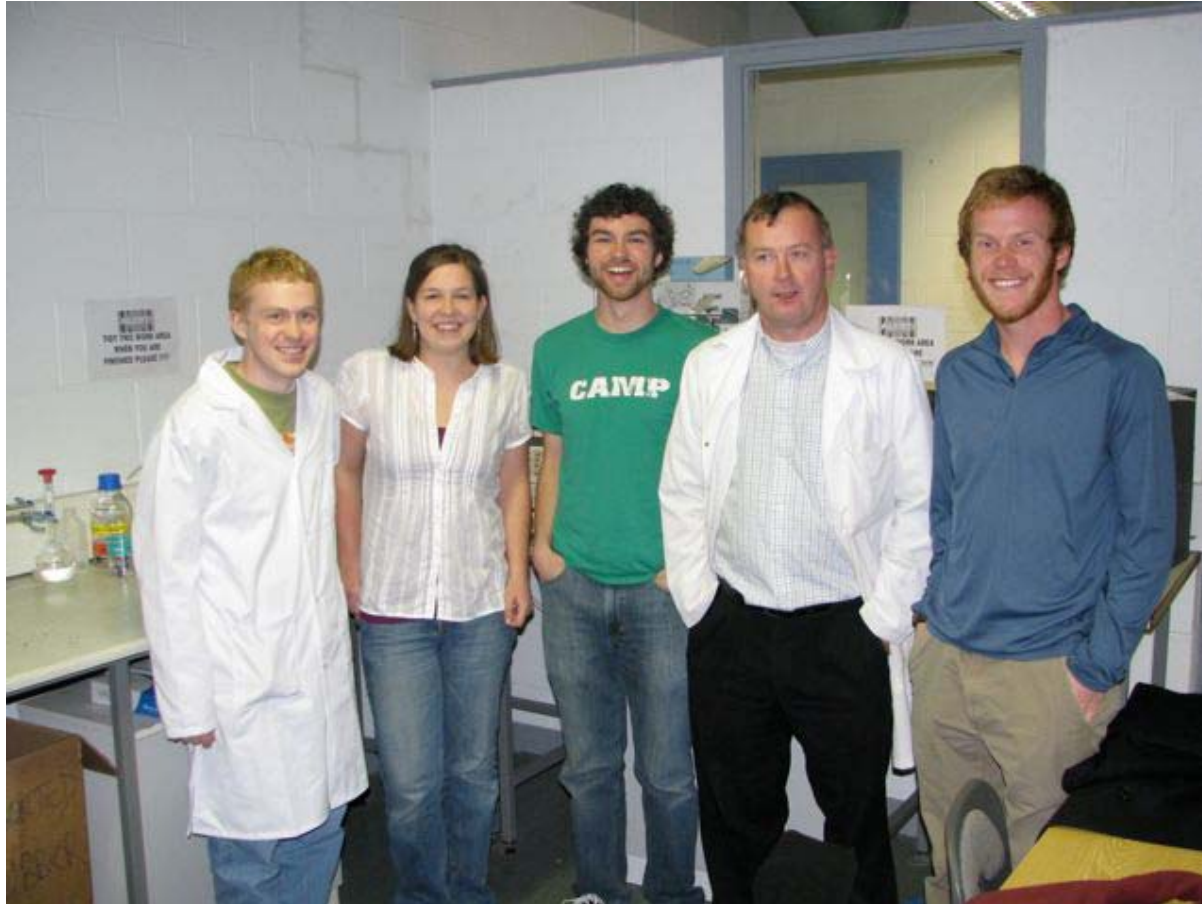
\* One year Masters then Ph.D.



# Atlantis Program

- In addition to required coursework, students can take language classes
- Students also work on a research project with a faculty mentor in one of the following focus areas:
  - Drug development/combinatorial chemistry
  - Green chemistry/environmentally beneficial catalysis
  - Nanotechnology or sensors
  - Bioanalytical chemistry

# Atlantis Research



US students with Professor Paraic James at DCU



# European Students Eligibility

- European students are required to study one semester at a different European University (e.g. under the Socrates/Erasmus program) **and** one year (2 semesters, minimum 10 months) **either** at the University of Kansas or at the University of Arkansas.
- The study stay at the US institution is intended to be in the 4th year of the Atlantis curriculum.
- Students who want to transfer to the Atlantis degree and to apply for fellowships to start their study stay in the US in September/October should have finished their third year in a Bachelor Curriculum Chemistry in summer and should have studied one semester at a European University other than in the country of their current home institution.





# US Student Eligibility

- US-students within the Atlantis Chemistry Curriculum will study in their 3rd or 4th year one semester at Dublin City University **and** one semester at the University of Regensburg.
- Fellowships for study stays at the European institution are available starting September/October.
- Fellowships are \$1,000/month up to \$12,000/yr
- Applications due in March

# Program Overview: US Students

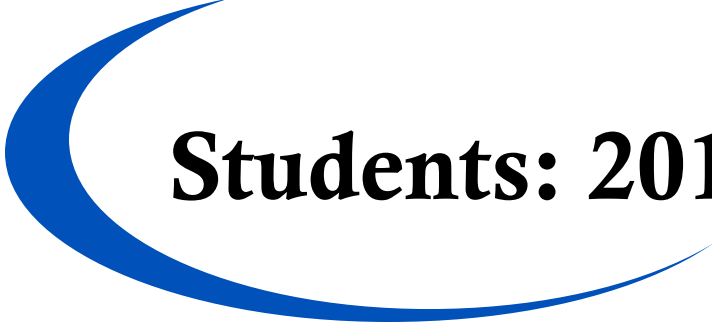
- Study abroad program funded by US Dept. of Education in partnership with European Commission
- Two semesters abroad in Germany (Regensburg) and Ireland (Dublin)
- Dual Bachelor of Science in Chemistry degree from KU and Regensburg upon successful completion



# Cultural Exchange



KU student Katie Remely experiencing the Bavarian culture



# Students: 2010-2011

## US

2 students from KU are being sent to DCU/UReg

5 students from UArk are being sent to DCU/UReg

## Europe

1 student from DCU is being sent to KU

1 student from DCU is being sent to UArk

No students from Regensburg are being sent to KU

4 students from Regensburg are being sent to UArk



# Alumni





# Curriculum for KU students

- Earn credit in required courses for KU Chemistry BS degree
- Special opportunities for training and research
  - Drug development/combinatorial chemistry
  - Green chemistry/environmentally beneficial catalysis
  - Nanotechnology
  - Sensors
  - Bioanalytical chemistry
- Elective classes in language and cultural instruction



# Research Collaborations



I. Huber (reg) presents research to both sides of the Atlantic

# Financial Aid

- \$12,000 stipend/year for travel/living expenses
- Limited supplemental scholarships available
- Available to KU students who qualify for other forms of financial aid/scholarships





# Faculty Exchange

- In the grant there are funds allocated for faculty to travel to the participating universities
- Faculty exchange consists of short courses and seminars along with meeting with the students and faculty
- This often leads to collaborations and graduate student exchange



# Students on a trip in Ireland





# American Students in Regensburg

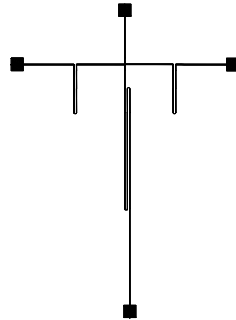
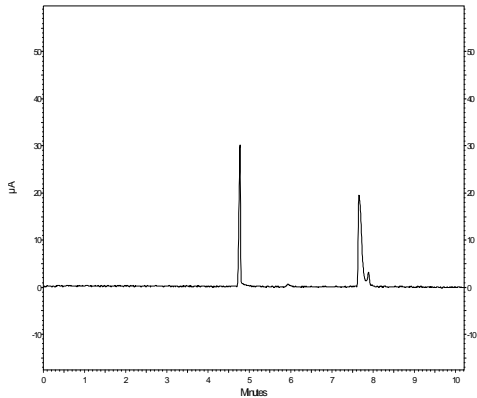


# Jonas Bloedt: University of Regensburg





# Jonas Bloedt



- Came to KU in Fall 2008
- Joined my group to work on microfluidics and clinical diagnostics
- Wrote a bachelor thesis for his degree on his research
- Graduated with a degree from KU in spring of 2009
- Currently working on a Masters/Ph.D. with Professor Matisyk at University of Regensburg; potential collaborative projects

# Emer Duffy: DCU



- Came to KU in fall of 2009
- Joined my group to work on in vivo sensors based on microdialysis and microchip electrophoresis
- Needs one more year at DCU to graduate from KU
- Returned to Dublin this month; intends to pursue research with Malcolm Smyth, Fiona Regan, Brett Paul or Dermott Diamond



# Additional Collaborations

- Emilie Mainz to Tyndall University in Cork; visited University of Regensburg
- Graduate student exchange to DCU
- New faculty collaborations resulting from faculty and student exchanges

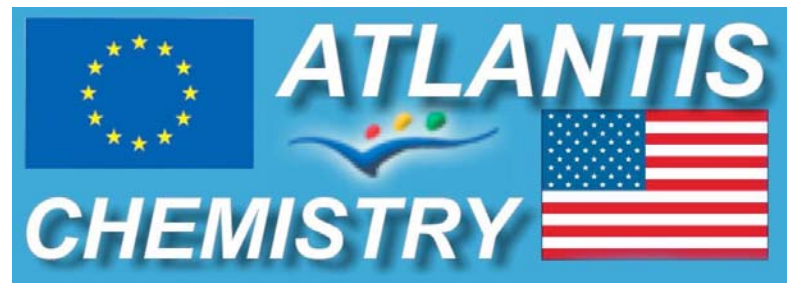




# Conclusions

- Great program that encourages international understanding and cooperation
- Some problems with synching the “liberal arts” focus of US education with the more specialized European educational system
- US students take chemistry classes while European students take mostly CLS requirements
- Language can be an issue with US student going to Germany
- Great opportunity to see the world

# Acknowledgments



- Professor Jeff Aube
- Cady Bush
- Professor Oliver Reiser
- Professor Fiona Regan
- Professor Pariac James
- Professor Matysik
- Jonas Bloedt
- Emer Duffy
- EEU and Department of Education

# Thank you for your attention!

Jonas' recruiting slide...



- Short Info about the ATLANTIS program:
- KU students can go to DCU (Dublin, Ireland) and University of Regensburg, Germany
- Funded with \$1000 per month
- Drinking age in Germany: 16 years

# EU Atlantis Program



Transatlantic Dual Bachelor of Science Degree in Chemistry