Annual Report
2009-2010
Chemistry Department

IA. Peer-Reviewed Faculty Publications

Fadi Bou-Abdallah


Maria Hepel

1. Stobiecka, M., Deeb, J., Hepel, M.
“Ligand Exchange Effects in Gold Nanoparticle Assemble Induced by Oxidative Stress Biomarkers: Homocysteine and cysteine”

“Nanogravimetric and Voltammetric DNA-Hybridization Biosensors for Studies of DNA Damage by Common Toxicants and Pollutants:
Biophysical Chemistry 146 (2010) 43-53

3. Stobiecka, M., Deeb, J., Hepel, M.
“Molecularly Templated Polymer Matrix Films for Biorecognition Processes: Sensors for Evaluation Oxidative Stress and Redox Buffering Capacity”

IB. Other Faculty Publications (including WEB news, discussions, reviews, editorials, etc.)


II. Papers Delivered at Conferences and Conference Attendance

Fadi Bou-Abdallah

2- Attended and participated in the Title III Research Proposal Writing Workshop, SUNY Potsdam, September 17-19, 2009
3- Attended a NSF workshop on Undergraduate Research - NSF Catalyzed Innovations in the Undergraduate Curriculum Washington, DC, August 20, 2009

Maria Hepel

1. Maria Hepel
   “Interactions of Dyes and Biomolecules with Qurodrople Plasmonic Oscillations of Gold Nanorods”
   *The 11th International Fischer Symposium on “Microscopy in Electrochemistry”, Monastery of Benediktbeuern, Germany, July 26-31, 2009*

2. Magdelana Stobiecka and Maria Hepel
   “Conformational Transitions in Poly-L-Lysine coated Gold Nanoparticles”
   *The 239th National Meeting of the American Chemical Society, August 16-20, 2009, Washington, D.C.*

3. Maria Hepel and Magdalena Stobiecka
   “Gold Nanoparticle Induced Luminescences Quenching and Resonance Light Scattering Effects in Gold Nanoparticle/Dye Assemblies”
   *The 239th National Meeting of the American Chemical Society, August 16-20, 2009, Washington, D.C.*

4. Maria Hepel and Magdalena Stobiecka
   “Resonance Elastic Light Scattering Assays for Oxidative Stress Based on Selectively-Cross-linked Gold Nanoparticle Network Assembly”
   *4th International Conference on Oxidative/Nitrosative Stress and Disease The New York Academy of Sciences, New York City, October 28-30, 2009*

5. Magdalena Stobiecka, Kaitlin Coopersmith and Maria Hepel
   “Study of Resonance Elastic Light Scattering and Fluorescence Energy Transfer in Rhodamine B Modified Spherical Au Nanoparticles and Nanorods”
   *The Materials Research Society, Boston, MA, November 30-December 4, 2009*

6. Magdalena Stobiecka, Jeffrey Deeb and Maria Hepel
   “Resonance Elastic Light Scattering Assays Based on Selectively-Cross-linked Gold Nanoparticle Network Assembly”
   *The Pittcon Conference on Analytical Chemistry and Applied Spectroscopy”, Orlando, FL., February 28-March 4, 2010*

7. Anna Nowicka, Agata Kowalczyk, Zbigiew Stojek and Maria Hepel
   “Quartz Crystal Nanobalance and Voltammetric Approaches for DNA Hybridization Detection. Influence of Cv(VI), pesticides and herbicides on DNA Biosensor Response”
   *The Pittcon Conference on Analytical Chemistry and Applied Spectroscopy”, Orlando, FL., February 28-March 4, 2010*

David Gingrich


### Anthony Molinero


### Martin Walker


2. **Martin A. Walker**

3. **Martin A. Walker**
   Oral presentation: "WikiProjects: Improving Wikipedia by organising and assessing articles"

4. **Martin A. Walker**
   Oral presentation: "Chemistry on the Internet."
   36th ACS Northeast Regional Meeting (NERM 2009), Hartford, CT, October 7-10, 2009.
   I also served as symposium organizer for the session, "Publishing and Promoting Chemistry in the Internet Age" which included this presentation.

5. **Martin A. Walker**

6. **Martin A. Walker**
   Invited presentation on wikis, one half of "Teaching Digital Natives using Collaborative Learning Tools", Associated Colleges Teaching Effectiveness Conference, Clarkson University, November 7, 2009.

7. **Martin A. Walker** and John C. Proetta
   Invited presentation, "Green chemistry in the high school laboratory"
Meetings attended:

3. 36th ACS Northeast Regional Meeting (NERM 2009), Hartford, CT, October 7-10, 2009.

Janice Westerling

1. Attended and participated in NAOSMM’s (National Association of Scientific Managers’) 36th Annual Conference and Trade Show, July 27-August 3, 2007. During the conference, helped at the NAOSMM vendor registration desk and announced two speakers.

III. Receipt of Grants/Awards and Grants Applied For

Fadi Bou-Abdallah

1. National Science Foundation-Major Research Instrumentation Program (NSF/MRI) Grant: Acquisition of an Isothermal Titration Calorimeter. (\$126,525). Fall 09, Awarded. Collaborators on this grant are: Profs. E. Silvana Andreescu (Clarkson Univ.), Maria Hepel and Robert Ewy (SUNY Potsdam) and Samantha Glazier (St Lawrence Univ.)
2. American Chemical Society Innovative Projects Grant Program (\$1500). Spring 10, Awarded
3. NSF-Faculty Early Career Development (CAREER) Program (\$650,000). In Preparation
4. Grant Development Program (\$488). Fall 09, Awarded
5. UUP Individual Development Award (IDA) (\$688), Spring 10, Awarded
6. Five Kilmer Apprenticeship Award (\$500) with the following students: Justin McNally, Huidong Yang, Adeola Awomolo, Brenna Cooper and Banu Kandemir, Fall 09, Awarded
7. Five Kilmer Apprenticeship Awards (\$1000) with the following students: Banu Kandemir, Adeola Awomolo, Justin McNally, Huidong Yang and Brenna Cooper. Spring 10, Awarded

David Gingrich

1. National Science Foundation Course, Curriculum, and Laboratory Improvement Program (NSF CCLI - Phase I: Exploratory), "The Development of Biochemistry Laboratories Centered on Hemoglobin", David Gingrich (PI), Jan Trybula (Co-PI), \$149,992. Continued three year grant period with May 1, 2008 start date.
2. Kilmer Undergraduate Research Apprenticeships (3), \$150 total.
3. Individual Development Award (New York State/United University Professions Joint Labor-
Management Committees); travel to the 2010 Annual Meeting of the American Society for
Biochemistry and Molecular Biology (ASBMB), $717.
4. Faculty Travel Grant (SUNY Potsdam Strengthening Institutions Grant, US Dept of Education),
$600.
5. Training Support Program, Promega Corporation, $521 for biochemistry laboratory supplies.

Maria Hepel

1. “Raman Spectroscopy Implemented in Undergraduate Science Education”, The National Science
Foundation, CCLI-Phase 1: Instrumentation Program with Co-PI Daniel Aruscavage, funded
2010, $200,000 (2 years)
2. Department of Defense, DOD Autism Idea Development Grant (funded) $549,713.66 (3 years)
   • “Redox Abnormalities as a Vulnerability Phenotype for Autism and Related Alterations
     in CNS Development”
3. Grant Writing Initiative (GWI), The Research and Sponsored Programs Office, May 9, 2010, $250
4. Major Research Instrumentation Program (MRI) NSF ($125,000), acquisition of An Isothermal
   Titration Calorimetry –(Co-investigator with P.I. Dr. Fadi Bou-Abdallah), funded March 2010
5. The United States Department of Education-Title III grant “Increasing Undergraduate Research in
   Chemistry Undergraduate Curriculum” Co-PI with Martin Walker, Anthony Molinero and Clifford
   Rossiter. $12,000 (funded 2009-2010)
6. Title III Strengthening Institutions Grant, U.S. Department of Education, Conference Travel grant
   $600.00, with a student Kaitlin Coopersmith, $1000 to present research at Pittcon Conference, 
   March 2010.
7. Kilmer Undergraduate Research Apprenticeship “Development of Biosensors for Homocysteine
   Detection” with student Jeffrey Deep, Fall 2009 (3 credits, $150)
8. Kilmer Undergraduate Research Apprenticeship “Studies of Radiationless Process in the Multi-
   component Dye Systems in the Presence of Gold Nanoparticles” (2 credits, $100) with student Kaitlin
   Coopersmith, Fall 2009.
   Phenomena in Glutathione-Mediated Gold Nanoparticles” with student Zachary Reed, 
   Spring 2010 (1 credit, $50)
10. Kilmer Undergraduate Research Apprenticeship “Studies of Quercetin-DNA Interactions” 
    with student Sara Cutler, Spring 2010, (2 credits, $100)
11. Kilmer Undergraduate Research Apprenticeship “Development of Biosensors for Homocysteine
    Detection” with student Jeffrey Deeb, Spring 2010, (3 credits, $100)
12. Kilmer Undergraduate Research Apprenticeship ”Development of DNA Biosensors for Detection of
    Toxicants” with student Amanda Prance, Spring 2010,(1 credit $50)

Clifford S. Rossiter

1. Research and Creative Endeavors Program Award, SUNY Potsdam, Fall 09, “Use of 
   Lanthanide Metal Complexes to Improve the Efficiency of Solar Panels” Awarded $1000
2. Kilmer Undergraduate Research Apprenticeship, SUNY Potsdam, Fall 09, “Development of New Antibiotics with a Novel Mode of Action” with students: David Blackburn, Emily Ball Awarded $300
4. The United States Department of Education-Title III grand “Increasing Undergraduate Research in Chemistry Undergraduate Curriculum” Co-PI with Maria Hepel Martin Walker, and Anthony Molinero $12,000.00 (funded 2009-2010)

Martin Walker

1. Kilmer Undergraduate Research Apprenticeship; “Expanding the scope of an environmentally benign Friedel-Crafts acylation”; John A. Montgomery, Martin A. Walker; Awarded.
2. Kilmer Undergraduate Research Apprenticeship; “Phase-transfer catalysts for fluorous biphasic reactions”; Jason Gokey, David Gingrich; Awarded.
3. The United States Department of Education-Title III grand “Increasing Undergraduate Research in Chemistry Undergraduate Curriculum” Co-PI with Maria Hepel, Anthony Molinero and Clifford Rossiter. $12,000.00 (funded 2009-2010)

Janice Westerling

1. Travel Award for attendance at and participation in NAOSMM’s (National Association of Scientific Managers’) Annual Conference and Trade Show, July 26-31, 2009. SUNY Potsdam Chemistry Department, $100.
2. Travel Award for attendance at and participation in NAOSMM’s Annual Conference and Trade Show, July 26-31, 2009. SUNY Potsdam Dean of Arts and Sciences, $300.
3. Travel Award for attendance and participation in NAOSMM’s Annual Conference and Trade Show, July 26-31, 2009, Boise, ID, SUNY Potsdam Provost, $300.
4. Sergio Vega Travel Award (NAOSMM grant) for attendance at and participation in NAOSMM’s Annual Conference and Trade Show, July 26-31, 2009, $450.

IV. Student Research and Attendance at Scholarly Conferences (Student Names Underlined)

Fadi Bou-Abdallah


4- Brenna Cooper, Sonia Levi and Fadi Bou-Abdallah: “Iron Oxidation and Deposition in Mammalian Heteropolymer Ferritins”. Poster presented at the *Learning and Research Fair*, SUNY Potsdam, April 21, 2010

5- Banu Kandemir, Anne Mason and Fadi Bou-Abdallah: “Thermal Analysis of the Interaction between Human Serum Transferrin and its Receptor”. Poster presented at the *Learning and Research Fair*, SUNY Potsdam, April 21, 2010


**David Gingrich**


**Maria Hepel**


4. **Kaitlin Coopersmith**, Magdalena Stobiecka and Maria Hepel  
   “Resonance Energy Transfer in a Multi-component Fluorescent Dye System Influenced by Gold Nanorod Quadrupole Surface Plasmon Coupling”  

5. **Zachary Reed, Justine Barcomb, Robert Wallace**, Magdalena Stobiecka and Maria Hepel  
   “Development of Methods for the Detection of Gluathione”  
   *Learning & Research Fair*, SUNY Potsdam, April 21, 2010

6. **Sara Cutler**, Magdalena Stobiecka and Maria Hepel  
   “Studies of Quercetin-DNA Interactions”  
   *Learning & Research Fair*, SUNY Potsdam, April 21, 2010

7. **Jeffrey Deeb, Jessica Slaper**, Magdalena Stobiecka and Maria Hepel  
   “Biosensors for Homocysteine Detection”  
   *Learning & Research Fair*, SUNY Potsdam, April 21, 2010

8. **Amanda Prance, Kaitlin Coopersmith**, Magdalena Stobiecka and Maria Hepel  
   “DNA Biosensors for Studies of Interactions of Herbicides and Pesticides with DNA”  
   *Learning & Research Fair*, SUNY Potsdam, April 21, 2010

9. **Matthew McCabe, Dustin Blake, Samuel Zic, Kaitlin Coopersmith, William Recher, David Murphy, Christopher Tatro, Cullen Reiley** (Faculty Advisor: Dr. Maria Hepel).  
   “Development of Sensors for Detection of Heavy Metal Pollutants”  
   *Chemistry Open House Poster Session*, December 4, 2009

10. **Nicholas Trombley, Sara Cutler, Zachary Reed, Amanda Prance, Kaitlin Coopersmith, Susan Garrett, Stephanie Scriber, Mathew Hartnett, Cortney Poirier, John Montgomery, Ashley Isabella, Cody Campbell, Laura Thiele**, (Faculty Advisor: Dr. Maria Hepel)  
    “Development of Methods for the Detection of Homocysteine”  
    *Chemistry Open House Poster Session*, December 4, 2009

**Anthony Molinero**


**Clifford S. Rossiter**


**Martin Walker**
V. New Programs; Courses and/or Laboratories Proposed or Revised

Fadi Bou-Abdallah

1. Adopted a new physical Chemistry textbook “ELEMENTS OF PHYSICAL CHEMISTRY” by Peter Atkins and Julio de Paula, Fifth Ed., 2009, revised and included new materials in the physical chemistry course.
2. Introduced Isothermal Titration Calorimetry (ITC) Technique and gave talks on ITC to Chemistry Students in Instrumental and Physical Chemistry courses.
3. Developed two new Physical Chemistry Experiments for CHEM 452 - Spring 10: An Isothermal Titration Calorimetry Analysis of ferric ion binding to human serum transferrin and bovine serum albumin (BSA) and Absorption Spectra of Diphenylpolyenes: Particle in a Box Problem and Molecular Modeling: Molecular Orbitals of Diatomic and Simple Polyatomic Molecules and Ions.

David Gingrich

1. Continued development of new Biochemistry 1 and 2 and General Chemistry 2 laboratories in accordance with NSF grant timeline. Included revisions of new labs and equipment purchases.
2. Increased use of on-line homework for students in Biochemistry lectures.

Maria Hepel

1. Introduced sweeping changes into chemistry curriculum by introducing research component into regular course work funded by Title III Strengthening Institutions Grant.
2. Introduced three new research projects into CHEM 311, Quantitative Analysis lab sponsored by the Curriculum Development Title III grant (23 students)
   • “Development of Sensors for the Detection of Homocysteine”
   • “Effect of Copper-Catalyzed Hydrogen Peroxide Generation From Homocysteine on Bacteria”
   • “Development of Methods for the Detection of Pb(II) Ions”
The projects listed above were presented by students during Chemistry Open House Poster Session, December 4th, 2009 and were positively evaluated by Title III consultant Professor R. Marande from Bloomsburg University.
3. Introduced two new research projects into CHEM 415, Instrumental Analysis lab sponsored by the Curriculum Development Title III grant (12 students)
   - “Development of Methods for Glutathione Determination”
   - “Identification of Polymer Film Using FT-IR-ATR”

**Anthony Molinero**

1. Taught Forensic Science Laboratory for the first time to 17 students. This included 14 new laboratory exercises. This included all setup and takedown of experiments.
2. Served as General Chemistry Lab Coordinator. Revised the General Chemistry Laboratory manual for both the Fall and Spring semesters. Managed the setup and takedown of all General Chemistry labs. Collect weekly class data from the 125+ students to generate the weekly grade sheet.
3. Converted all lectures in General Chemistry to Keynote Presentations (PowerPoint presentations) of General Chemistry 105 and 106.
4. Taught two Advanced NMR sessions for Maria Hepel’s Instrumental Analysis course.
5. Used new online homework program in General Chemistry.
6. Introduced new two new General Chemistry laboratory exercises.
7. Teaching General Chemistry 105 and 106 during Summer 2010.

**Clifford S. Rossiter**

1. CHEM 100: Introduced a research component into CHEM 100, an introductory chemistry class for non-majors, which represents a major shift in how our non-major classes are taught. The research project involved testing the water quality of the Raquette River as a component to their textbook’s two chapters on water and acids and bases, Chapters 5 and 6 respectively. The students formed groups of three and each collected a sample from the river on different days. The students met with me outside of class to perform the experiments which determine the pH of the river, dissolved oxygen content, alkalinity, turbidity, nitrogen content, and phosphorous content. The data was collected by the students and the importance of one particular experiment and how the result related to the rivers health was submitted as a paper. It is anticipated that the research project will continue for many years, allowing students to monitor the health of the river over time.

2. Inorganic Chemistry Lab: Implemented five new experiments into the curriculum:
   - Triboluminescent Manganese Compounds
   - Studying a Ligand Substitution Reaction with Variable Temperature $^1$H NMR Spectroscopy
   - Preparation of $(\text{Mesitylene})\text{Mo}(\text{CO})_3$
   - CdSe Quantum Dot Nanocrystals
   - Introduced a research component involving the extraction of metal ions from Zn(II) metallo-enzymes utilizing a variety of different chelating agents.

**Martin Walker**
1. As part of the Title III grant for revising the organic chemistry laboratory component, a new three-step synthesis of trans-anethole from p-hydroxybenzaldehyde was developed. The last two steps were used to create a research project for CHEM 342.
   • Methylation of p-hydroxybenzaldehyde to produce p-anisaldehyde
   • Ethylation of p-anisaldehyde by ethylmagnesium bromide to give anethyl alcohol.
   • Dehydration of anethyl alcohol to produce trans-anethole.
2. As part of the Title III grant, new variations were introduced for two experiments in CHEM 341:
   • Recrystallization – two new compounds were evaluated.
   • Simple and Fractional Distillation – two new compound mixtures were used, and different concentrations were also tested for the first time.
3. A new 74 page workbook was prepared and used for the first time in Advanced Organic Chemistry (CHEM 444)

VI. University Service

**Fadi Bou-Abdallah**

1. Edited/Reviewed a total of 18 chapters submitted to the special BBA volume on ferritin.
3. Guest Editor to *Biochimica Biophysica Acta - General Subjects (BBA-GEN)* for a special issue centered on the structure-function relationship of the iron storage protein, Ferritin.
4. Presented two Chemistry Magic Shows to ~ 120 high school students and teachers at the “25th Annual High School Science Lab Day November 7th, 2009 and to ~ 100 people and during The Annual SUNY Potsdam Campus Festival, April 21-24, 2010, held at SUNY Potsdam.
5. Treasurer of the Northern New York section of the American Chemical Society
6. Served as the Library Liaison for Chemistry Department
7. Participated in most of the “Open House” and the Major Affair events on campus.
8. Participated in the LTEC “Writing Grants” and “CUR Grants: Q & A” Workshops (01/26/09)
9. Faculty research advisor for three Presidential Scholars, Banu Kandemir, Adeola Awomolo, and Justin McNally
10. Treasurer of the North Eastern Regional Meeting (NERM2010)
12. Participated in the Natural and Pre-Med Learning Community meeting at SUNY Potsdam, Fall 2009
13. Participated in the Family week-end and offered a talk/demonstration on CSI-Potsdam”. September, 26, 2009

**David Gingrich**

1. Served as chair of Health Professions Advisory Committee (HPAC)
2. Served as College Radiation Safety Officer
3. Served on the Radiation Safety Committee
4. Served as the Faculty Senate representative to the TLTR (Teaching and Learning Technology Roundtable - chair of Planning Subcommittee
5. Served as chair of Chemistry Safety Committee
6. Served on CSTEP Advisory Board
8. Participated in A Major Affair, October 28, 2009 – representative for Biochemistry major and Health Professionals Advisory Committee.
9. Participated in Fall 2009 Open House Program.
10. Served as faculty advisor for the SUNY Potsdam American Society for Biochemistry and Molecular Biology (ASBMB) Undergraduate Affiliate Network (UAN) chapter (for biochemistry students).
11. Served as faculty advisor for Pre-Health Club (SGA).

**Maria Hepel**

1. Reviewer of the proposals to:
   - National Science Foundation
   - ACS – Petroleum Fund
2. Served as reviewer during 2009-2010 year of 65 papers submitted to the following international journals:
   Analytical Chemistry; Biosensors & Bioelectronics; Bioconjugate Polymers;
   Chemistry Colloid & Surface Science; Chemistry Communications;
   Central European Journal of Chemistry; Chemistry of Materials;
   Bioelectrochemistry; Journal of the Electrochemical Society;
   Electroanalysis; Electrochimica Acta; Sensors;
   Electrochemistry & Solid State Letters; Journal of Hazardous Materials
   Journal of Electroanalytical Chemistry; Materials Chemistry & Physic
   Solid State Ionics; Electrochemistry Communications
   Photobiology; Journal of Materials; Journal of Physical Chemistry
   Thin Solid Film; Environmental Science & Teaching
   Electrachemistry Communications; Langmuier; Analytical Chemistry
   Journal of Physicals Chemistry Letters; Journal of Alloys & Compounds;
   Journal of Physics Condens; Matter
3. Participated in the Campus Festival with four undergraduate students and two graduate students in the panel “How undergraduate research prepares our students for graduate programs”, April 22, 2010
4. Participated in “A Major Affair”, October 28, 2009, SUNY Potsdam
5. Participated in several Open Houses and the Academic & Student Services Fair, SUNY Potsdam
6. Design and maintain website: www2.potsdam.edu/hepelmr
7. Conducted peer reviewed classroom visits for non-tenured faculty
8. Performed assessment of student learning outcomes in analytical courses.
9. Member of the Teacher Education Advisory Committee (TEAC) SUNY Potsdam
10. Lectured about ATM/STM to physics class, PHYS 480, Electromagnetic Theory and perform the hands on experiments for this class with AFM equipment use.
11. Served as a reviewer on the NSF panel reviewing 40 proposals submitted for MRI program, November 2009.
12. Served as a reviewer of proposals for Robert Hill’77 Endowment for “Environmental Science”
13. Served as a advisor for 28 students/semester in Fall & Spring semesters
14. Member of the Teaching Effectiveness Committee, Associated Colleges of St. Lawrence Valley. Involved in planning and organization of the conference “Teaching Digital Natives: by Martin Ramsay, November 7th, 2009, Clarkson University
15. Prepared schedule and host a visit of Title III Grant consultant Professor Marande, December 4th, 2009.
16. Served as a Program Chair for NERM 2010, Northeast American Chemical Society Regional Meeting, held at SUNY Potsdam, June 2-5, 2010. NERM conference had 530 attendees, more than hundred invited speakers, 40 different symposia, 120 posters and 230 oral presentations. I was involved in a conference booklet preparation together with Dr. M. Walker. In addition, I was in charge of selecting symposia topics, selecting symposia organizers, approving submitted abstracts, scheduling speakers and planning for all 40 symposia schedules.

Anthony Molinero

1. Served as General Chemistry Laboratory Coordinator.
2. Served as Chemistry Department Assessment Coordinator.
4. Served as Faculty advisor for the chemistry honor society, Gamma Sigma Epsilon.
5. Served as Academic Coordinator for Men’s Hockey.
7. Elected to the General Education Committee.
9. Taught “CSI Potsdam” at the Family Weekend, September 26, 2009
10. Worked on the judging panel for the Kilmer Undergraduate Research Poster Awards.
12. Served on the Health Professions Advisory Committee.  
14. Served as a Co-Organizer for the Environmental Session for American Chemical Society NERM 2010 meeting, SUNY Potsdam.  
15. Served as a Co-Organizer for the General Poster Session for American Chemical Society NERM 2010 meeting, SUNY Potsdam.  
16. Served as Lab Remodeling liaison.  
17. Served as Summer Academic Advisor for incoming freshman, Summer 2009.

**Clifford S. Rossiter**

2. Participated in two “Open House” events on campus
3. A Major Affair, October 2009 -- Chemistry major.
4. Participated in Family Weekend, presented lecture, CSI - Potsdam
5. Served on the Academic Programs & Curriculum committee
6. Served on UUP Professional Development committee

**Martin Walker**

1. Served on the General Education Committee.  
2. Served on the Distance Learning Committee.  
5. Oral presentation, "Green chemistry: Transforming the high school laboratory", given at the campus festival.  
6. Served as general chair for the 37th Northeastern Meeting (NERM) of the American Chemical Society.  
7. Served as reviewer for three papers submitted to the *Journal of Organic Chemistry*, *ARKIVOC* and the *Journal of Chemical Information & Modeling*.

**Janice Westerling**

1. Member, SUNY Potsdam Campus Safety Committee.  
2. Secretary, SUNY Potsdam Chemistry Department Safety Committee.  

**VII. Community Service/Public Service**

**Fadi Bou-Abdallah**
1. Served as a peer-reviewer for 9 research papers submitted to different scientific journals
2. Organized the 2nd Annual Soccer Game between the Chemistry and Biology departments
3. Presented a Chemistry Magic Show at The Annual SUNY Potsdam Campus Festival, April 21-24, 2010, held at SUNY Potsdam
4. Served as a Treasurer for the NERM meeting, held at SUNY Potsdam, June 2-5, 2010

Maria Hepel

1. Analyzed samples for the Anthropology Department using gas chromatography & FT-IR
2. Served as a reviewer of proposals to The National Science foundation (NSF) and the Petroleum Research Fund.
3. Served as a reviewer of 65 papers to different chemistry, biotechnology, nanotechnology, materials science and physics scientific journals.
4. Served as a Program Chair for the Northeast Regional Meeting of the American Chemical Society, NERM 2010.

David Gingrich

1. Potsdam Youth Baseball and Softball Association (maintained web site).

Anthony Molinero

1. Potsdam Church of the Nazarene: Adult Sunday School Teacher.
2. Assistant, FW Friends children's program, Potsdam Church of the Nazarene.

Martin A. Walker

1. Served as general chair and webmaster for the 37th Northeastern Regional Meeting (NERM) of the American Chemical Society, which attracted around 530 attendees, 120 poster presentations and 230 oral presentations in June 2010.
2. Coordinated the Wikipedia 1.0 Project, which is developing offline releases for sale and free use in schools. A collection of 31,000 articles was released in 2010, and this is now in use in African schools. Collaborating with faculty at universities in Michigan and California to improve the quality of these collections.
3. Served as reviewer for three papers submitted to three chemistry journals.
4. Served as elder and Sunday School teacher at Potsdam First Presbyterian Church.
Janice Westerling

1. Violinist, St. Lawrence University String Orchestra
2. Member, Massena Artists’ Association, St. Lawrence County Arts Council.
3. Member, “Swim a Mile for Hospice” Committee, Hospice and Palliative Care of St. Lawrence Valley

VIII. Chemistry Seminar Program

The Chemistry Department Seminar program consists, in part, of invited speakers and student seminars. The visitors from graduate schools are a crucial part of our seminar program and very beneficial to our students. Time is provided for our students to meet with each visitor and to discuss graduate school opportunities. The list of visitors and their seminar topics are listed below along with our student seminars.

SEMINAR SPEAKERS FOR FALL 2009

Professor Brian Gibney
Brooklyn College, CUNY
“Zinc Protein Folding: Lessons from Synthetic Peptides”
September 29, 2009

Professor Janet Morrow
SUNY Buffalo
“Lanthanide Complexes as Responsive Agents for Luminescence and Magnetic Resonance Imaging”
October 6, 2009

Dr. Kanna Ito
SUNY Albany
“Arsenic Speciation in Whole Blood by HPLC-ICP-MS”
October 20, 2009

Professor Youngjae You
South Dakota State University
“Photodynamic therapy, treating cancers with Low Energy Light, and the Roles of Chemists”
November 3, 2009

Professor Edward Moczydlowski
Clarkson University
“The Importance of Suppressing Excitability Insights into Molecular Physiology of K+ Cannel Proteins”
November 10, 2009
**Professor Robert Mach**  
Washington University School of Medicine, St. Louis, MO  
“RNA as an Enzyme: An alternative RNA processing pathway generates a specialized ribosome that is used for nonsense-mediated decay.”  
November 17, 2009

**Professor Silvana Andreescu**  
Clarkson University  
“Nanomaterials for Advanced Biological Sensors. From Basic Research to Practical Applications”  
December 1, 2009

**SEMINAR SPEAKERS FOR SPRING 2010**

**Professor Mathew May**  
Syracuse University  
“Nanoparticle Nanotechnology & Biomimetic Self-Assembly”  
March 16, 2010

**Dr. Matthew Hudson**  
Syracuse University  
“Investigating hydrogen bonding in the solid-state: combining spectroscopy with quantum computational methods”  
May 4, 2010

**Professor Sargajit Banerjee**  
University of Buffalo  
“Building from the (Bottom Up): Towards Metal Oxide Nanomaterials for the next Generation of Batteries and Computer Chips:

**STUDENT SEMINARS**

**David Wickham**  
“Iron-sulfur cluster biogenesis”  
March 23, 2010

**Amanda Dickson**  
“Chemistry of Bee Propolis”  
March 23, 2010

**Justine Barcomb**  
“Recent developments in the Larock Indole Synthesis”
March 30, 2010

**Jon Diamond**
“Aerobic oxidation of alcohols without enzymes”
March 30, 2010

**Adeola Awomolo**
“The role of β-amyloid -protein assembly in Alzheimer’s disease and its direct metal ion reduction to produce hydrogen peroxide”
April 13, 2010

**Jordan Manzer**
“Use of cisplatin in the treatment of cancer”
April 13, 2010

**Jeffrey Snyder**
“Chiral Ionic Liquids as Stationary Phases in Gas Chromatography”
April 20, 2010

**Matthew Hartnett**
“The Determination of a Proper Ligand Group For Increased Lanthanide Luminescence Lifetimes”
April 20, 2010

**Huidong Yang**
“Isothermal titration calorimetry: a tool to study binding energetics”
April 20, 2010

**Jeffrey Deeb**
“A Nanoparticle-Magnetic Microbead Based Electrochemical Sandwich Immunoassay of Carcinoembryonic Antigen and Phosphorylated Acetylcholinesterase”
April 27, 2010

**Kaitlin Coopersmith**
“Interactions Between Nile Blue and Immobilized Single- or Double-stranded DNA and Its Application in Electrochemical Recognition”
April 27, 2010

**IX. 2010 Chemistry Major Graduates** – 13 graduates

Nichole Andrews   B/A
Justine Barcomb   B/S
Jeffrey Deeb     B/S
John Diamond     B/A
2010 Biochemistry Major Graduates – 3 graduates

Adeola Awomolo
David Blackburn III
Veronica Landau

X. Other Notable Activities

Fadi Bou-Abdallah

1. Participated in all LTEC events on campus
2. Attended and participated in the spring 2010 Learning Communities Workshop, Collaborative Learning Experience, May 7th, 2010, SUNY Potsdam with Dr. Estela Rojas.
3. Hired two students to conduct research in my lab this summer: Justin Mc Nally, and Brenna Cooper. Justin and Brenna’s 6 weeks summer research salaries will be covered by my Research Corporation grant.
4. Member of the Council of Undergraduate Research (CUR)
6. A collaborator on a Department of Defense (DOD) Grant with Prof. Linda Luck at SUNY Plattsburgh
7. A collaborator on a NSF RUI proposal with Prof. Brandy Russell at Gustavus Adolphus College at St. Peter, MN

Maria Hepel

1. Member of the Editorial Board of the “Polish Journal of Environmental Studies”
2. Member of the Editorial Board “Open Electrochemistry Journal’
3. Invited by the Guest Editor to write a chapter to the book on Atrazine Toxicity
4. Invited by the Guest Editor Professor Egon Matijevic to contribute a chapter to the book “Final Particles in Medicine & Pharmacy”
6. Collaboration on the project “Effect of Toxicants on DAN Damage” with University of Warsaw, Poland
7. Worked on DOD grant developing sensors for biomolecules and biomarkers of autism. Supervised two postdoctoral researchers and two undergraduate students, (Jeffrey Deeb and Kaitlin Coopersmith) during Summer 2009

**Anthony Molinero**

1. Taught General Chemistry (CHEM 105& 106) both lecture and lab Summer 2010.
2. Was voted as one of the top five Favorite Faculty of the Year in the Phi Eta Sigma (National Freshmen Honor Society) campus wide vote. This is the fourth time in the top five in addition to winning the award twice.

**Martin A. Walker**

1. Collaborations to interconnect the chemical information community with Wikipedia. I negotiated a collaboration with Chemical Abstracts Service (CAS) for validation of chemical information on Wikipedia which led to CAS starting a new website for the general public, www.commonchemistry.org. This work has been reported in the chemistry media, notably "Chemical & Engineering News."
4. Served on advisory board for chemspider.com, the world's largest open access chemical database, recently acquired by the Royal Society of Chemistry.

**Janice Westerling**

1. Awarded re-certification as Certified Scientific Material Manager, CSMM, July 23, 2009 in Boise, Idaho. This recertification was granted by the National Association of Scientific Materials Managers, valid through August 2014.
2. Received 1.2 CEU’s (Continuing Education Units) for attending training sessions and seminars at the NAOSMM’s Conference July 27-31, 2009.
3. Completed a 6-week online course titled The Pedagogy & Technology of Online Learning, October 26th through Dec.4th, 2009 through SUNY Potsdam’s Extended Education Department.
4. Obtained $14,043 in laboratory supplies and equipment for the Chemistry Department, donated by Spectrum Chemicals and Laboratory Products