

THE SCOPE



Michigan Branch- American Society for Microbiology
Fall 2003 Conference

"Life in Extreme Environments"

Saturday, October 4, 2003 (9:00am-2:00pm)

Registration: 8:00am-9:00am

*Fetzer Center at Western Michigan University,
Kalamazoo, Michigan*

Department of Biological Sciences

WESTERN MICHIGAN UNIVERSITY



The Fall 2003 meeting of the Michigan Branch-American Society for Microbiology will be held at the Fetzer Center at Western Michigan University, located in Kalamazoo, MI. There will be three exciting seminars on *Life in Extreme Environments* by Drs. Diana E. Northup (University of New Mexico), Gordon G. Southam (University of Western Ontario), and Robert V. Miller (Oklahoma State University) along with a student poster session and corporate sponsor exhibits. Please mark your calendars for this event!

The MI-ASM extends a special invitation to our Canadian colleagues to join us for this one-day conference in Kalamazoo, Michigan.

Michigan Branch - American Society for Microbiology

President's Report (Michael Huband)

It is an honor to serve as president of MI Branch ASM. The fine work performed by my fellow board members and predecessors have made this a relatively easy position to perform. I have been involved with MI Branch ASM for the past 15 years and have previously served as President-elect, Secretary (4 years), Corporate Liaison (2 years), and have assisted at the registration desk during several meetings. I am very impressed with the success (quality of the programs, workshops, and membership participation) this organization has achieved during the past few years. I hope that during the coming year we will continue to strengthen our membership and build upon our strong student member participation.

In the past, MI ASM has been constrained by a tight budget. Recently, we have been fortunate enough to receive a generous endowment from the Gerhardt Trust. These funds are specifically dedicated to support our student members. Additionally, we have received a substantial charitable donation from the Pfizer Foundation. Together, these funds will be used to greatly increase our level of student support while continuing to deliver high quality meeting programs and workshops. Please visit our webpage or contact a board member for additional information.

The executive board of MI ASM is always in need of interested individuals to volunteer for elected and appointed board positions. An advanced degree is not required, only a strong commitment to Microbiology is needed. We are especially in need of faculty members (primary contacts) from academic institutions.

Dr. Silvia Rossbach (President-elect, MI ASM) has put together an excellent program for the fall meeting entitled "Life in Extreme Environments". I hope to see you all at Western Michigan University on October 4th, 2003.

President-Elect's Message (Silvia Rossbach)

Greetings from the President-Elect. I am looking forward to welcoming you for our fall meeting, Saturday, October 4, in the Fetzer Center of Western Michigan University. Meeting preparations are well on their way. If you have any questions or suggestions, please contact me (Silvia.Rossbach@wmich.edu)

Secretary's Message (Jia Liu)

It's the beginning of another school year and a time of busy activities for many. I would like to send a warm and hearty welcome back to returning students! And to all members, thank you for your support and participation with the branch over the past years! Your branch has been actively planning over the summer months to accomplish more than we ever have before. Special highlight goes to the added support and awards for student chapters as well as for our fall meeting. As your Branch Secretary, I look forward to seeing you again at our fall meeting!

Treasurer's Report (Jeffery Hobden)

The financial state of the Michigan Branch of the American Society for Microbiology is sound! Since the last report, we have obtained \$10,000 from the Philipp Gerhardt Foundation (thanks in large part to Ralph Gorton's efforts) and an additional \$3,000 from the Pfizer Foundation Volunteer Program (kudos to Mike Cohen, Mike Huband, and Debra Hanna). These funds have been deposited in an interest-bearing account currently earning 2.65% (rates as always are subject to change!). Our General Funds account contains approximately \$13,000 (approximately because I am awaiting the latest bank statements!). Our combined treasury is now approximately \$26,000. A great deal of this money will be used to support student activities within our branch and to further the goals set forth by the MI-ASM as outlined in our chapter's constitution.

Lastly, it is with great sadness that I must announce my resignation as treasurer of the MI-ASM effective December 31st, 2003 due to a career relocation. One of the current board members will serve in my stead until elections can be held to replace me. It has been my pleasure to serve such a vibrant organization and I am sure it will continue to thrive given the dedication of the board members and the enthusiasm of its members.

Education Chair's Report (Debra Hanna)

As education chair of the Mi-ASM, I am very excited to announce the provisional acceptance for three new student chapters. These chapters include University of Michigan, Flint (Faculty advisor/ Mary Ann Cardani), Michigan Tech University (Faculty advisor/ Sue Bagley), and Western Michigan University (Faculty advisor/ Sylvia Rossbach). The national ASM recognizes these chapters and each group is eligible for student funds awarded through National. The groups will be "officially" voted on in the spring of 2004. I would like to thank the faculty advisors, students and board members who helped in this process. As always, these groups must abide by the constitutions approved by National and MI-ASM. Please remember that student chapters need to provide me with a quarterly report indicating chapter activities and meetings as well as an account of monies spent. This greatly helps my ability to recognize and reward active chapters.

MI-ASM will be awarding free National memberships for 2004 to all active student chapter members. These are students who are active within their student chapters and are current with their dues. I will provide forms for National memberships at the WMU meeting on October 4th to faculty advisors and will send them to National two weeks following the meeting.

Lastly, it is my 2003 goal to facilitate open communication between student members, their faculty advisors and myself. In order to facilitate this, I intend to meet with each group either at your location or even by phone. I would also like to facilitate communication between the great student chapters active at various campuses. This is an endeavor that I would like to discuss with faculty advisors and student officers in the coming months.

I look forward to meeting you all at the upcoming meeting and I am looking forward to year focused on increasing student involvement in the MI-ASM.

Past-President's Report (Judith Whittum-Hudson)

Thanks to several new sources of support to the Branch, we plan to expand support of student activities including attendance at the Fall and Spring meetings. The Gerhardt Endowment, the Pfizer Foundation, and a Regional ASM Grant to our Branch will allow us to provide partial support for student Branch members to travel to our Branch meetings, or to regional and appropriate national meetings. We particularly hope that this will allow TWIG student members to attend at least one Branch meeting a year. We plan to provide funds to student chapters to defray the costs of chapter activities (relevant field trips, speakers). To request funds for these purposes, please contact Michael Huband, 2003-04 President of MI-ASM, with an individual email address and relevant information (copy of submitted/to be submitted abstracts or activity). The MI-ASM has a strong commitment to promoting interest of students in microbiology, and these sources of funds will enhance the Branch's ability to do this.

GERHARDT ENDOWMENT TO THE MI-ASM

by Ralph Gorton

Through the generosity of Dr. Philipp Gerhardt and his wife Vera, the Michigan Branch is now able to provide substantial support for student research and travel. The Gerhardt Endowment will be used to enhance the microbiology research training of undergraduate and early stage graduate students within the State of Michigan.

The Endowment funds are stipulated for: **1) Research Excellence Awards:** awarded to students who demonstrate exemplary accomplishment in experimental design and results that are reported as a poster or as an oral presentation at a MI-ASM meeting. **2) Travel Awards:** granted to students to supplement other financial resources for travel so as to allow the awardees to attend an appropriate microbiology-related scientific meeting, or to obtain special microbiology-related research training.

The availability of the awards will be published on the MI-ASM website and distributed to a master list of Michigan educational institutions offering microbiology-related programs. Website information will also be provided on how to apply for the awards and the amount available for each award.

Dr. Gerhardt is a former chairperson of the Department of Microbiology at Michigan State University, former President of both the ASM and the International Union of Microbiological Societies, and a distinguished teacher, administrator and research scientist.



AMERICAN
SOCIETY FOR
MICROBIOLOGY

2002-2003 Michigan Branch ASM **Officers and Executive Committee Members**



American Society for Microbiology

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(Michael.Huband@pfizer.com)

President-Elect: Silvia Rossbach, Western Michigan University (Silvia.Rossbach@wmich.edu)

Past-President: Judith Whittum-Hudson, Wayne State University (jhudson@med.wayne.edu)

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Fall Meeting Organizer: Silvia Rossbach, Western Michigan University
(Silvia.Rossbach@wmich.edu)

Please see the MI-ASM homepage for further Officer and Committee Member contact information.

****PLEASE COPY AND POST IN YOUR DEPARTMENT!****

Fall 2003 MI-ASM Conference

"Life in Extreme Environments"

Saturday, October 5, 2003 (9:00 AM-2:00 PM)

Fetzer Center at Western Michigan University, Kalamazoo, Michigan



Department of Biological Sciences

WESTERN MICHIGAN UNIVERSITY



- | | |
|-----------------|--|
| 8:00-9:00 AM | Registration, Continental Breakfast (sponsored by bioMerieux and Dot Scientific), Corporate Exhibit and Poster set-up. |
| 9:00-9:15 AM | Welcome and Opening Remarks.
<u>Michael Huband</u> , President of MI-ASM |
| 9:15-10:15 AM | <u>Dr. Diana E. Northup</u> , Professor: General Library - Science & Engineering, Associate Professor of Biology, University of New Mexico, NM.

ASM FOUNDATION SPEAKER
"CAVE DECORATING MADE EASY - JUST ADD MICROBES: THE GEOMICROBIOLOGY OF CAVES" |
| 10:15-10:45 AM | Coffee Break/Visit Posters & Corporate Exhibits. |
| 10:45-11:45 AM | <u>Dr. Gordon G. Southam</u> , Associate Professor, Canada Research Chair in Geomicrobiology, Department of Earth Sciences, University of Western Ontario, London, ON, Canada.
"BACTERIAL MINERAL INTERACTIONS" |
| 11:45-1:00 PM | Lunch and Business Meeting (officer election results announced), Visit Corporate Exhibits and Student Posters, Talk with Speakers, Prizes Awarded. |
| 1:00-2:00 PM | <u>Dr. Robert V. Miller</u> , Regents Professor, Oklahoma State University, Department of Microbiology & Molecular Genetics, Stillwater, OK.
"A POSTCARD FROM ANTARCTICA: BACTERIA AND THE OZONE HOLE" |
| 2:00 to 3:00 PM | Pfizer Antibiotic Production Facility tour (Dr. Rossbach is planning a tour of the Pfizer antibiotic production facility immediately following the meeting. The tour is limited to 30. Please indicate your desire to tour these facilities in the "Comments" section when you register. |

For additional information and registration, please visit:

<http://mi-asm.org/>

NOTE: To ensure reservations for lunch and the meeting, please pre-register electronically at the MI-ASM homepage by Monday, September 29.

Conference Speaker Bios



ASM FOUNDATION SPEAKER DR. DIANA E. NORTHUP, Professor: General Library - Science & Engineering, Associate Professor of Biology, University of New Mexico. Dr. Northup, a dedicated spelunker and chaser of deep cave microbes, will enlighten us on "CAVE DECORATING MADE EASY - JUST ADD MICROBES: THE GEOMICROBIOLOGY OF CAVES."

Dr. Diana Northup has been studying things that live in caves since 1984. She has a Ph.D. in Biology from the University of New Mexico. She and her colleagues on the SLIME (Subsurface Life in Mineral Environments) Team are investigating how microbes help form the colorful ferromanganese deposits that coat the walls of Lechuguilla and Spider Cave in Carlsbad Caverns National Park (funded by the NSF Life in Extreme Environments Program); how microbes participate in the precipitation of calcium carbonate formations called pool fingers; and the microbial diversity located in the hydrogen sulfide cave, Cueva de las Sardinias in Tabasco, Mexico. Diana has recently been honored by having her work featured on NOVA and by being asked to serve as a Guest Editor for Geomicrobiology Journal for a special issue on Geomicrobiology of Caves. She is also the recipient of a Charles A. and Anne Morrow Lindbergh Foundation grant to study the impact of humans on microbial populations in caves. Currently, Dr. Northup blends the best of both worlds by teaching biology students information searching skills as the Biology Librarian in Centennial Library at the University of New Mexico, where she is an Associate Professor, and by actively researching cave microbial ecology using molecular and microscopy techniques. She is also an Associate of the Museum of Southwestern Biology.

DR. ROBERT V. MILLER, Regents Professor, Oklahoma State University, Department of Microbiology & Molecular Genetics, Stillwater OK. Dr. Miller will present us with "A POSTCARD FROM ANTARCTICA: BACTERIA AND THE OZONE HOLE."

I first became interested in microbiology as a high school student in Modesto, California when I acquired an internship to work in the microbiology research laboratory of Gallo Winery. My interest grew when, as an undergraduate at the University of California at Davis, I majored in microbiology and worked for Robert Hungate as an undergraduate assistant. My education continued at the University of Illinois, Urbana-Champaign where I trained in molecular biological aspects of microbiology with Paul Sypherd and received my Masters and Ph. D. in 1972. My interest in bacterial genetics was kindled with my postdoctoral fellowship at University of California, Berkeley where I studied molecular aspects of recombination under the mentorship of Alvin J. Clark the discoverer of the *recA* gene in *Escherichia coli*. Ecology was introduced to me by my friend and colleague Gary Saylor when we were both young and naive Assistant Professors at the University of Tennessee, Knoxville. Upon moving to the Stritch School of Medicine, Loyola University of Chicago, I began to combine these interests in the study of the evolution, mechanisms of genetic exchange, and DNA-damage coping mechanisms of environmental bacteria. I continued these interests when I moved to Oklahoma State University in 1991.

Dr. Miller earned his B.A. in Microbiology, University of California-Davis (1967), M.S. in Microbiology, University of Illinois (1969), and his Ph.D. in Microbiology from U of Illinois in 1972.

DR. GORDON G. SOUTHAM, Associate Professor, Canada Research Chair in Geomicrobiology, Department of Earth Sciences, University of Western Ontario, London, ON Canada. He will address the topic of "BACTERIAL MINERAL INTERACTIONS".

Dr. Gordon Southam is a world-class researcher in Geomicrobiology, who is recognized as an expert by the American and Canadian Societies for Microbiology, the Geological Society of America, and the Society for Mining, Metallurgy and Exploration. Additionally, his collaborations with industrial partners in Canada, the U.S., Australia and South Africa have positioned him as an international leader in developing bacterial mining processes. In addition, Dr. Southam was recently appointed as a Co-Investigator at the National Aeronautics and Space Administration (NASA) Johnson Space Center's Astrobiology Institute for the Study of Biomarkers.

Dr. Southam received his B.Sc. in 1986 and Ph.D. in 1990 from the Department of Microbiology at the University of Guelph. Postdoctoral research (1990-94) was affiliated with the Western Mining Corporation, Canada; WMC, Australia; and the Ontario Geological Survey before moving to the Dept. of Biological Sciences, Northern Arizona University (Assist. Prof. 1994-97; Assoc. Prof. 1997-2001).

As Chair in Geomicrobiology at the University of Western Ontario, Dr. Southam is building on his many collaborations to extend basic and applied research in three key geomicrobiological areas: 1) studying the harmful effects of metals on the environment and how to improve conditions using bacteria, 2) characterizing microorganisms living in such extreme environments as the deep subsurface of a South African gold mine and the hydrothermal pools of Yellowstone National Park, and 3) developing novel techniques that exploit geomicrobiological processes for the mining industry.

Publisher of 35 peer-reviewed manuscripts in 19 key journals covering Microbiology, Physics and Earth Sciences; key presenter at more than 70 scientific meetings and invited conferences; and a member of the U.S. Department of Energy Field Research Advisory Panel - Oak Ridge National Laboratory. He has served the American Society for Microbiology as Chair of Section J - Morphology and Ultrastructure; the Canadian Society for Microbiologists a member of the Education Committee and is currently secretary of the Geobiology and Geomicrobiology division of the Geological Society of America.

Poster Presentation Guidelines:

The Michigan ASM encourages students (both undergraduate and graduate students), as well as faculty and other professional microbiologists, to present posters at our fall and spring meetings. Ideally a poster presentation would relate to the general theme of the conference, but that is not a criterion for submission. If you would like to present a poster of your research at this MI-ASM CONFERENCE, follow the guidelines below.



- **Students who present a poster do not pay the conference registration fee and they also receive one year free membership in MI-ASM.** STUDENT ENTRIES will be judged by branch members and the winner of the "Best Student Poster" will receive a framed certificate, a copy of Dr. Philipp Gerhardt's classic text, and a free membership to the National ASM. Submit your name, college or university you attend, department affiliation, the full title of your poster, and a brief (200 words) abstract of its content to the conference organizer. **The deadline for submitting abstracts for posting on the MI-ASM website is October 1.** You may submit abstracts after this date, but they may not be posted prior to the conference.
- Use a Times Roman 12-pt. font, if possible. Type the title first then list the authors (all capital letters; use an asterisk to denote the person delivering the poster), then list institutions and short addresses. You may include e-mail addresses if you wish.
- Abbreviations that are generally understood are acceptable.
- Underline or italicize scientific names.
- Please submit the above by email to: **RGorton@lcc.edu**. **Send the information within the body of the e-mail message and not as an attached file.** You will receive electronic confirmation that your poster info arrived safely from cyberspace! Your poster abstract will automatically be forwarded to the Conference Organizer, Dr. Silvia Rossbach (Western Michigan University).
- If there is sufficient time, we will post early submitted abstracts on this meeting web site. All poster abstracts will be posted as part of the on-line post-conference summary.
- If you presented your poster at an ASM National Meeting or at another conference, please note that in your abstract submission.
- If you have any questions regarding posters, please contact **Dr. Silvia Rossbach**.
- Non-students may also submit posters; simply follow the above guidelines.

CONFERENCE LOCATION, PARKING, & MISC. INFORMATION.

Meeting Organizers and Contacts:

Dr. Silvia Rossbach, President-Elect of MI-ASM, Department of Biological Sciences, 3425 Wood Hall, Western Michigan University, 1903 W. Michigan Avenue, Kalamazoo, MI 49008-5410 (Silvia.Rossbach@wmich.edu).

Michael Huband, President of MI-ASM, Pfizer Global R&D, Antibacterial Pharmacology Department, 2800 Plymouth Road, Ann Arbor, MI 48105 (Michael.Huband@pfizer.com).

Meeting Location:

The meeting will be held at the Fetzer Center at Western Michigan University, Kalamazoo, MI.

Directions to the Fetzer Center:

From I-94 Detroit (East) and Chicago (West):

At Exit #75, turn north onto Oakland Drive, drive 2.7 miles; Turn left onto Howard Street. Follow Howard and turn right on Valley Drive. Follow Valley Drive and turn right on Rankin. Follow Rankin and turn left on Business Court. Turn left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot 72F.

From US 131 (North) Grand Rapids, Muskegon:

At Exit #36A, turn east onto Stadium Drive, drive 2.2 miles to Howard Street; turn left. Follow Howard and turn right on Valley Drive. Follow Valley Drive and turn right on Rankin. Follow Rankin and turn left on Business Court. Turn left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot 72F.

From M-43 North of Kalamazoo:

Follow westbound M-43 through downtown Kalamazoo (Gull Road-Riverview Avenue-East Michigan Avenue-Kalamazoo Avenue-West Main Street) until reaching Solon Street (the fourth traffic light after Kalamazoo Avenue merges with West Main Street and becomes two-way traffic; near Kalamazoo College.) Turn left onto Solon and drive south 0.5 miles where Solon turns into Howard Street. Follow Howard and turn left on Valley Drive. Follow Valley Drive and turn right on Rankin. Follow Rankin

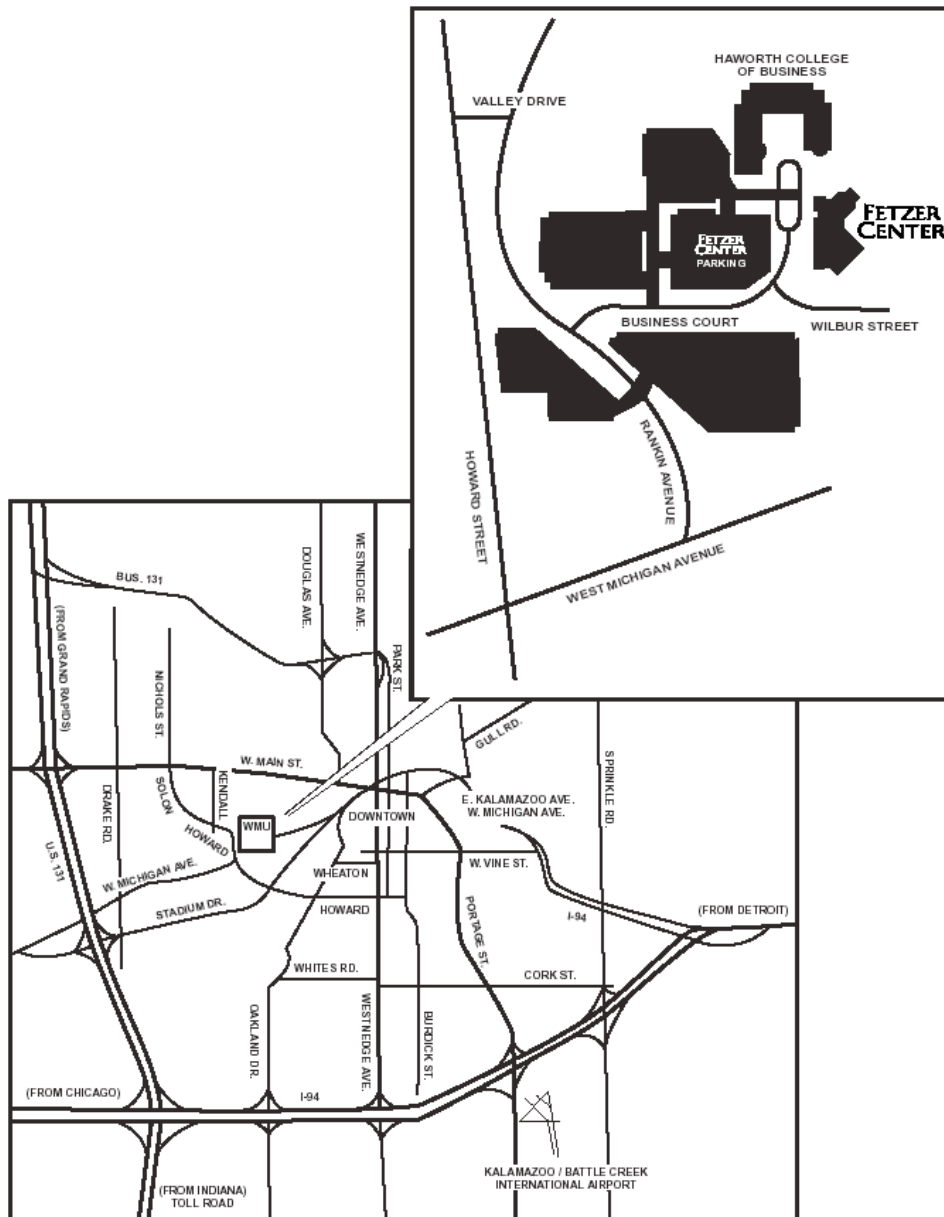
and turn left on Business Court. Turn left into the large parking Lot, then immediately right into the Fetzer Center parking area, Lot 72F.

From Downtown Kalamazoo:

Drive westerly on Stadium Drive (Business Route 131). At Howard Street turn right. Follow Howard Street and turn right on Valley Drive. Follow Valley Drive and turn right on Rankin. Follow Rankin and turn left on Business Court. Turn left into the large parking lot, then immediately right into the Fetzer Center parking area, Lot 72F.

From M-43 West of Kalamazoo:

Drive easterly past US 131 and after 1.9 miles, turn right onto Solon Avenue and drive south 0.5 miles where Solon turns into Howard Street. Follow Howard Street and turn left on Valley Drive. Follow Valley Drive and turn right on Rankin. Follow Rankin and turn left on Business Court. Turn left into the large parking lot, then immediately right into the Fetzer Center parking area Lot 72F.



A special "Thank You" to:

bioMerieux & Dot Scientific,
for sponsoring the Continental
Breakfast.

Pfizer Global R&D for its consistent and substantial
level of contribution.



Corporate Partners: We thank all of our **Corporate Partners** for providing financial support for the Michigan ASM Branch. Members are encouraged to support our Corporate Partners. Please visit <http://mi-asm.org/> for further information on our corporate partners.



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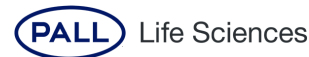
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Microbiology Education is devoted to the dissemination of research on teaching and learning microbiology. www.microbelibrary.org/Submissions/journal.htm

Submission Deadlines: October 3, 2003

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Submission Deadlines: March, July, and November

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11th ASM CONFERENCE FOR UNDERGRADUATE EDUCATORS

May 21-23, 2004, Xavier University of Louisiana, New Orleans

Learn new teaching practices, keep abreast of the sciences, and network with peers. Scientific and education sessions, workshops, posters, exhibits, and discussions. Travel grants for graduate students, post-doctorates, early career faculty, non ASM-members faculty at minority-serving institutions and community colleges.

Abstract Submissions: **February 20, 2004**

Travel Grants, and Early Registration Deadline: **March 19, 2004**

Final Registration Deadline: **April 16, 2004**

www.asmcue.org

STUDENTS AND MENTORS– LOOK NO FURTHER ‘03 and ‘04 OPPORTUNITIES TO CONDUCT RESEARCH AND LEARN ABOUT CAREERS

ASM UNDERGRADUATE RESEARCH FELLOWSHIP (URF) – conduct research in the microbiological sciences *at your home institution* during the summer. Present your work at the ASM General Meeting. \$3200 stipend plus travel.

www.asm.org/Education/index.asp?bid=4316

ASM MINORITY UNDERGRADUATE RESEARCH FELLOWSHIP (MURF) – conduct research *at a leading graduate school in the microbiological sciences* during the summer. Present your work at the ASM General Meeting. \$3000 stipend plus housing and travel.

www.asm.org/Education/index.asp?bid=4316

R.D. WATKINS GRADUATE FELLOWSHIP - conduct research in the microbiological sciences for a maximum of three years. Present your work at an ASM meeting or conference. \$15,000 annual stipend, renewable for three years www.asm.org/Education/index.asp?bid=6262

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