



MCF RETENTION TIMES

Official Newsletter of MCF

Volume 20, No. 1 October/November 2003

Visit us on the MCF Website www.minnchrom.org

MEET OUR NEWEST BOARD MEMBER

Secretary-Elect position filled

Please join us in welcoming Amy Oberg, our new secretary-elect! Amy is currently with CIMA Labs working as a research chemist in the Analytical department where she analyzes stability data on pharmaceutical drugs. Amy has a degree in chemistry from Minnesota State University, Mankato. Thanks for volunteering to help us out Amy!

In her role as Secretary-elect, Amy will observe the duties of Secretary prior to actual assumption of those duties. In addition to filling in at meetings in the absence of the Secretary, Amy will serve as the organization's historian. She will retain the archives (newsletters, meeting minutes, financial data, and other materials concerning the activities of MCF) and will search for information at the request of members.

At the close of the 2004 spring symposium, Amy will assume the duties of the Secretary. These duties include participation in the four or five board meetings held throughout the year. The secretary is also responsible for documenting and distributing the minutes from these meetings to the other participants.

MCF needs more dedicated volunteers to serve on the various committees and sub-committees. Consider how the organization could benefit from *your* talents and contact Brenda Tjelta at 651-306-4236 or email her Brenda.tjelta@ecolab.com to find out more about available opportunities.

SEX EDUCATION FOR FISHES??

Quarterly Meeting - October 29, 2003

Grant Paul, MCF Director, has organized a quarterly meeting with guest speaker Dr. Deborah Swackhamer. Dr. Swackhamer is the co-director of the Water Resources Center at the University of Minnesota. Her presentation is entitled "Estrogen Mimics and Sex Education for Fishes."

The quarterly meeting will be held at the Sheraton Four Points in St. Paul. There will be a networking reception at 6:30 p.m. with the presentation beginning at 7:00 p.m. Directions to the meeting location and more information will be forthcoming. Watch for the brochure!

CELEBRATING 25 YEARS!

2004 Spring Symposium marks 25th annual

This May the MCF will hold its 25th annual Spring Symposium. In celebration of this achievement, we are looking for volunteers to forward information on the whereabouts of past MCF Presidents, Palmer Award winners, and scholarship recipients. The editors would like to publish small synopses in upcoming newsletters to showcase their current achievements in chromatography or provide information about the influence of MCF in their careers

Can't remember who the past Presidents were?? See the list on the MCF website at www.minnchrom.org. Please forward your remarks to Susan Wyatt at susan.wyatt@health.state.mn.us. The deadline for publication in the next newsletter is November 10th.

THANKS FOR THE OPPORTUNITY

Ravi Ravichandran, Past Editor, MCF Newsletter

It has been a great pleasure to serve as the MCF Retention Times editor for the past three years. I enjoyed the opportunity thoroughly. I want to thank the MCF Board for placing their trust and confidence in me. During my time as the editor, I worked towards streamlining the newsletter publishing process. I am really very pleased to hand over the task to the new team of editors: Susan Wyatt-Minnesota Department of Health and Glen Tipton-3M. They are both very enthusiastic and have a lot of good ideas. I feel like I am repeating the old lines- MCF Retention Times is your newsletter. Please feel free to submit articles that will be of interest to all the members. I am sure the new editorial team will be contacting you all through the newsletter requesting submissions. I wish Susan and Glen all the best! I will try to reach you all through the MCF newsletter in the future. 'Til then...."Bye!"

COMMITTEE MEETING HIGHLIGHTS

Symposium Committee-September 9, 2003

LeeAnn Higgins, Chair, Symposium Committee

The annual 3-day MCF Symposium is scheduled for May 11th -13th, 2004. The 2004 Symposium marks the 25th Anniversary for the MCF Symposium. The MCF has been active for 26 years, however the Spring Symposium was not held for one year. The Wednesday afternoon social event activities will reflect the 25th Anniversary, so prepare to celebrate! One new feature of the 2004 Symposium is that the registration fee will be waived for students who give oral presentations. We hope to encourage even more students to attend and participate, so spread the word to friends and colleagues! Another new feature that is being discussed is a Wednesday afternoon "Lab Topics Discussion Panel." The discussions would potentially be initiated by designated panel leaders and would focus on popular or common lab problems or topics along with appropriate troubleshooting methods and helpful solutions. Currently the committee is actively seeking a 2004 Symposium keynote speaker, and expects to designate a candidate by the beginning of October. Look for more Symposium updates in the upcoming Newsletters!

New Committee Member:

LeeAnn Higgins replaces Roberta Provost as MCF Symposium Committee Chair as of Summer 2003. LeeAnn is a Research Assistant Professor at the University of Minnesota, Department of Biochemistry, Molecular Biology and Biophysics (BMBB) and is employed in the Mass Spectrometry Consortium for the Life Sciences, which is a core facility housed in the BMBB department. LeeAnn graduated from the Pharmacology Ph.D. program at the University of Rochester, Rochester, NY in 1998 and then spent 1.5 years in Seattle, WA at the University of Washington in the Medicinal Chemistry department. The post-doctoral research utilized mass spectrometry for a proteomics-based project. LeeAnn joined the UM mass spec core facility located on the St. Paul campus in Dec 1999 and continues proteomics-based research in a growing core facility.

EDUCATION CORNER:**Spring Symposium 2003 Course Reviews, Part 2 of 2**

Michelle Iverson, Chair, Education Committee

Following are the remaining two reviews from the education courses offered at the 2003 Spring Symposium. Part 1 of this article (published in the June newsletter) reviewed the courses entitled "Mass Spectral Interpretation" and "Practical Advice for Developing Better GC Methods."

Chromatographic Analysis of Foods and Flavors—Symposium 2003

Reviewed by Bill Cameron

Stepping out and away from more traditional offerings focusing on instrumentation, the MCF Spring Symposium chose this year to host a short course entitled "Chromatographic Analysis of Foods and Flavors". A chromatographer with a strong background in this area was needed to take this topic and make it special. Dr. Becky Wittrig, currently the Food, Flavors, and Fragrance Innovations Team Manager at Restek, answered that call.

Dr. Wittrig took the class of eleven students through a journey that started with food chemistry from an analytical chemist's viewpoint, moved into techniques that are useful for the analysis of the different components of foods, spending time discussing various extraction, sample introduction, and detection techniques, and ending with an overview of topics ranging from chiral separations to glimpses into the future. This small but lively class was kept on its toes as the instructor presented challenges to it in the form of a 'label detective' out to discover what food was being described by a given list of ingredients. This activity gave an opening for Dr. Wittrig to discuss the purpose of various food components and ways to analyze for them. Since this course covered topics from the analysis of undesirable components such as pesticides to the analysis of desirable components like flavors, a broad range of chromatography techniques were discussed along with their role in the life of an analytical chemist involved in food and flavor analysis

The instructor's expertise in the area of food chemistry was displayed throughout the course as she helped the students to visualize the purpose for their analyses, problems that may occur in their daily work and solutions to those problems. Courses like "(the) Chromatographic Analysis of Foods and Flavors" demonstrate one of the goals of MCF, which is to educate and enlighten its members, and Dr. Wittrig demonstrates the reason for the success of MCF with her commitment to excellence and desire to share her knowledge and expertise.

HPLC Troubleshooting

Reviewed by John Freeburg and DeWayne Townsend

We again had the privilege of having Dr. Dolan provide us with his expertise in his presentation of "HPLC Troubleshooting". This course has always been popular in the past and this time was no exception. We did however depart from past tradition by not having a functional HPLC system, provided by various vendors, as part of the course work. Because of this we were able to expand the registration to forty students. The course was full before the registration deadline. There were 41 total attendees at this course.

The attendees were by in large from our local pharmaceutical firms or supporting private laboratories. Dr. Dolan provided an excellent

student workbook, which was appreciated by many of the attendees because it allowed them to concentrate on the course and not on note taking.

The class critiques were generally positive to very positive. Several commented on the need and desire for hands on hardware experience in the course. We may need to revisit this the next time around.

The typical attendee had several years experience in chromatography, either GC or HPLC. On the second day the class was given a problem set consisting of situations taken from cases that Dr. Dolan had received via email. These were very challenging and provoked a lot of thoughts and comments among the student teams.

The troubleshooting topics covered the spectra of HPLC theory and components, from mixing mobile phase to detector signals. Five "Rules of Thumb":

- (1) Rule of 1— Change only one thing at a time;
- (2) Rule of 2 – Make sure the problem happens twice or more;
- (3) Put it Back – if you swap components and the problem is not fixed put the original component back in the system;
- (4) Crystal Ball – Used it often to forecast problems; and finally,
- (5) Write it Down – we all know why.

Overall the course can be summed up by one of the students comments "Dr. Dolan does a wonderful job. Presentations overlap beginners to advanced user skills."

Upcoming Education Courses:

The education committee is pleased to announce a first time MCF course for this winter, LC-MS for Chromatographers. Refer to our website, www.minnchrom.org for all upcoming courses and registration information. Looking ahead to the 2004 Spring Symposium, we are offering a variety of courses, including: SPE, SEC/GPC, and of course a class on HPLC and GC. The following is a list of upcoming courses (please refer to www.minnchrom.org for more details):

"Introduction to HPLC" October 14-16, 2003

David Johnson (3M) and Larry Felice (Medtox)

"Advanced HPLC Method Development" November 11-12, 2003

Derek Southern, (Rheodyne, The LC Resources Training Group)

"Beginning GC" January 6-8, 2004

Dr. Gary Reineccius (U of M) and John Freeburg

"LC-MS for Chromatographers" January 27-28, 2004

Dr. Rohan Thakur and Dr. Leo Bonilla (Thermo Finnigan)

The following short courses are scheduled for the 2004 Spring Symposium:

HPLC Troubleshooting, John Dolan (BAS)

Advance Topics in Gas Chromatography, Daron Decker (Agilent)

Solid Phase Extraction, David Wells (Sample Prep Solutions)

Size Exclusion Chromatography/Gel Permeation Chromatography, Howard Barth (DuPont)

Please keep in mind that the Education Committee welcomes MCF Member Comments on course suggestions, instructor suggestions, and we always welcome new committee members! I can be reached at 952/431-6000 or michelle@chromtech.com.