

Annual Report 2012

Board of Directors and Officers:

Bego Gerber, President and Chairman of the Board
Rolande Hodel, Board Member
Rudy Baum, Board Member
Steve Chambreau, Vice President and Board Member
Lois Ongley, Secretary and Treasurer



Our Mission

Chemists Without Borders solves humanitarian problems by mobilizing the resources and expertise of the global chemistry community and its networks.

Our Vision

A global support network of volunteers providing mentoring, information and advice to ensure every person, everywhere, has affordable, consistent and persistent access to:

- Essential medicines and vaccines
- Sufficient safe water
- A sustainable energy supply
- Education in green chemistry and business which people can apply in their daily lives and teach to others
- Safe processes in work environments where chemical hazards exist
- Emergency support, including essential supplies and technology

Letter from the President

Dear Friends,

It is a wonderful thing to be surrounded by dedicated volunteers who are all committed to a worthy cause. That's the experience when one joins the Chemists Without Borders team. These are people who show up consistently and persistently because they want to make a difference in the lives of those less fortunate than themselves. Owing to this diligence, our Arsenic Project for Bangladesh and our Sierra Leone Chemistry Education Project are steadily moving forward. These projects will grow and expand into other locations and to meet other needs.

While we are always looking for innovative solutions to problems, sometimes the issues are not technical. Issues of poverty remind us to ensure that money flows - not through charity, but through economic development - into the pockets of those in need. For instance, if 10 million households buy water purifiers at \$35 each, how do we design things in culturally appropriate ways so that most of that \$350 million ends up in the pockets of those who live on \$1-2 a day? The solutions therefore involve not only chemistry, but also communication, distribution, and education (3 "tions" that one tends to shun), among others.

Special thanks are owed to our many generous donors who help fund these achievements, and to our collaborators at AIDSfreeAFRICA, the American Chemical Society, Khadarlis for Sierra Leone, and UNICEF. As members of the chemistry community with your worldwide networks, you can make a huge difference in the lives of many people as part of a great team at Chemists Without Borders. Come join us!

Peace,

Bego Gerber

Arsenic Project, Clean Water Initiative

Chemists Without Borders Arsenic Project seeks to help the 20-45 million people in Bangladesh at risk of ground water arsenic contamination.¹ Working with Manob Sakti Unnayan Kendro (MSUK) in Bangladesh, the organization is working to make a difference one household at a time by implementing a novel Composite Iron Matrix (CIM) filter. In 2012, Sahima Khan was appointed Project Manager and Nazneen Khanam began formal service as Field Liaison. The Arsenic Project's first phase will start with the distribution of 500 CIM filters and sending one of Chemists Without Borders' representatives to observe and document the CIM filter manufacturing and distribution process.

On February 18th, 2012, Highland High School's ChemClub organized an American Chemical Society - Mojave Desert Section (ACS) and Chemists Without Borders sponsored event (photo at right). Inspired by the Arsenic Field Event last year, Ankit Vij invited members of the University of California Santa Barbara Chemists Without Borders chapter to participate in demonstrations of the Arsenator and a composite iron matrix filter (designed by Dr. Abul Hussam of George Mason University). In addition, several fruit juices were tested for arsenic. Ankit presented the results of this event at the ACS Science Mixer at the San Diego national meeting (photo below right). This event provided a learning experience for all participants and turned out to be successful, increasing awareness of the prevalence of arsenic for all participants.



Sierra Leone Chemistry Education Team, Green Chemistry Initiative

Chemists Without Borders recently approved a modest (\$500) grant to support the development of a “chem lab in a baggie” project designed to apply the principles of green chemistry to the introductory sequence of college chemistry (first year general and non-majors). Shortly after the project approval, Chemists Without Borders was approached by Khadarlis for Sierra Leone² seeking assistance in re-building Sierra Leone, which recently emerged from a nasty civil war that ended in 2002. There is still much infrastructure that needs to be rebuilt (in 2004 about 40% of the senior secondary schools (comprising grades 10-12) were still in need of major reconstruction).³ The classrooms have very little in terms of equipment and supplies,⁴ and students are required to purchase their own textbooks. However, many students cannot afford to do so and instead, students copy notes from the chalkboard and imagine and draw their chemistry experiments. It seemed appropriate to meld the chem-lab-in-a-baggie with West African Senior Secondary Chemistry standards as Sierra Leone could really put this to good use. The kit will include low cost supplies that could be used world-wide in classrooms or in distance learning scenarios. Our kits will use less toxic and less hazardous chemicals, as there is no organized waste disposal in Sierra Leone. As of the end of 2012, team members included: Lois Ongley (Unity College), Marie Melzer (Old Dominion University) and Sara Shu (UCLA Chemistry Club).

¹ <http://www.who.int/mediacentre/factsheets/fs372/en/>

² <http://khadarlis.org/>, Khadarlis for Sierra Leone, last accessed August 20, 2012

³ http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099508849130/39166_Edu_Sierra_Leone.pdf

⁴ Although the ACS Guidelines and Recommendations for the Teaching of High School Chemistry recommends Bunsen burners, hotplates, and electronic balances, that is not realistic in Sierra Leone. Nor will the schools be able to afford much in terms of glassware.

Membership

Chemists Without Borders added 119 members in 2012 and now has 590 members in 53 countries, including 24 new members who joined us after the Sierra Leone project was highlighted by the American Chemical Society Network. Members participate in bi-weekly Conference Calls and receive newsletters. Chemists Without Borders is also reaching out to our membership through Social Media. A growing percentage of members are using our Facebook Group page and Community Page, as well as our LinkedIn Group page.



**Chemists Without Borders
Facebook Group page**

Regional Member Meetings provide a sense of community to local members in promoting new ideas and networking opportunities. Bay Area Member Meetings (BAMM) are posted on YouTube. Organization information is readily available in media kits so members can organize local meetings anywhere in the world.

James Stanfill, co-President of UC Santa Barbara Chapter of Chemists Without Borders had this to say about working with Chemists Without Borders:

“In terms of how CWB influenced my career choices I would say that it had a hand in motivating me to look outside my direct line of work within chemistry to talk to and meet others. It motivated me to attend ACS conferences and take such networking events seriously. It also got me interested in the idea that adulthood doesn't signal the end of groups like these where people get together to achieve good without the pursuit of profit in mind.”

Communications

In 2012, we published [Newsletter 14](#) to keep our members, donors and other stakeholders up to date with our progress. Chemists Without Borders' Sierra Leone Education project was featured in [ACS Matters](#). We had two press releases: [Chemists Without Borders and ACS section educates High School Chemistry Club](#) and [Chemists Without Borders recognizes Dr. Lois K. Ongley](#).



**Bay Area Membership Meeting,
Sunnyvale, CA, April 2012. Pictured from
left to right: John Cihonski, Steve
Chambreau, Nazneen Khanam, Bego
Gerber, KC Wang and Dan Lent.**

Financial Report

Chemists Without Borders currently operates on a very modest budget. It has benefited from the very generous contributions of its key members and their families, as well as some additional supporters. In 2012 fund-raising was in a lull as we restructured our Board of Directors and Officers. The Board of Directors set an ambitious 2013 fund-raising goal of \$50,000 to support our Arsenic and Sierra Leone Chemistry Education projects.

Fiscal Year January 1, 2012 to December 31, 2012

Beginning Balance* **\$7,875.82**

Income

Dividends

Donations

 Processed by PayPal **\$170.00**

 Other

Other Income

Subtotal **\$170.00**

Expenses

 PayPal processing fees **\$5.24**

 Meeting Expenses **\$174.79**

Subtotal **\$180.03**

Ending Balance** **\$7,865.79**

*Modified to reflect funds in PayPal account (\$1,051.64)

** Pay Pal - \$1,216.40, Bank of America - \$6,649.39

Thank you to our 2012 donors: Rudolph Addink, Kaye Angus, Steve Chambreau, Midge Hall and Suresh Singh.

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Website: www.chemistswithoutborders.org

Weblog: <http://chemistswithoutborders.blogspot.com>

Make a donation: <http://www.chemistswithoutborders.org/index.php/donate>

Chemists Without Borders is a registered 501(c)(3) with the Internal Revenue Service.
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