

Fellowships

Placing scientists with U.S. hosts for training in peaceful nuclear applications.

Group Training

Hosting IAEA-ANL training courses for participants from around the world.

Recruitment

Encouraging U.S. citizens to consider IAEA employment opportunities.

IP Newsletter

Transferring knowledge in peaceful uses of nuclear technology to developing countries.

Manager's Note

The Value of Evaluation

Prior to coming to Argonne in 2000 and taking on the management of the International Programs (IP) in 2003, I was working in the Evaluation Section of the Technical Cooperation Department (TC) at IAEA. Having first-hand knowledge of IAEA, TC and the people there has been so valuable. In fact, the work done in TC Evaluation was along the same lines as the work in IP, and I've been able to apply the experience I gained there to how I manage the International Programs.

Initially, managing the IP was a real challenge since I was handed a newly program – the Fellowship Program that was transferred from the National Academy of Sciences, and which places scientists and engineers from developing countries with U.S. host institutions for training and research opportunities. At the time, new procedures for the administration of the Program were being developed to meet new Department of State guidelines for IAEA activities, so not only were we taking on something new, we were also rewriting how it was done from the get-go. And over the past eight years the International Programs have continued to evolve into more areas and have undergone a multitude of changes, most recently in the Training Course Program.

The Training Course Program is an example of the importance of periodic program evaluation, as we've streamlined its procedures and processes and adopted cost reduction strategies; increasing the efficiency and effectiveness of the Program and resulting in the ability to increase the number of courses we offer. Specifically:

- new technology was applied including the development of course-specific websites to eliminate huge volumes of printing and to provide information to participants efficiently;
- unnecessary/excessive activities and wasteful spending were identified and eliminated without sacrificing quality; and

- easy access to information was established by developing a database instead of using paper files.

A lot of work went into evaluating and improving the Program, and since an outsider can give you fresh, new ideas, IP team members who don't typically work with the training courses were encouraged to participate in the planning discussions. Team work, knowledge sharing, new ideas, implementation of current technologies, and a willingness to help each other are key success factors for the International Programs' staff. Everyone in our team has the same desire to do their best so that makes them willing to adjust to new ways of doing things for better results.

As a confirmation of the success of our evaluation efforts, we received an interesting comment from a returning training course participant. He said that he thought the course he attended some years ago was great and never thought it could have been done any better, but he said he was wrong. He was so impressed at how well the new organization of the training courses turned out to be. Further proof that there is always room for improvement.

Since 2003, Dr. Hamilton has provided leadership in managing, evaluating and reporting on the IAEA Technical Cooperation (TC) program for the U.S. Department of State (DOS). In 2008, the International Programs team received Argonne National Laboratory's Pacesetter Award in recognition of their extraordinary efforts to produce quality deliverables for U.S. government sponsors under tight time constraints.

Fall IAEA/ANL Training Courses

The International Programs staff keep busy with back-to-back training courses.

In 2011 many improvements were made to the administration of the training courses and positive feedback was received from many people. Some of the improvements include training course websites with calendars and course materials, off-site lodging at Aloft Bolingbrook located near shopping, pre-arranged airport transportation, upgraded classroom and lecture hall set-up, a training course email box to share communications, and a checklist of administrative tasks.



DEVELOPING NATIONAL LONG-RANGE NUCLEAR ENERGY STRATEGIES (INPRO)

The IAEA/ANL Training Course Program hosted three training courses in the months of August and September, starting with “Developing National Long-Range Nuclear Energy Strategies (INPRO)” from August 8-19. This training course familiarized Member States, in an integrated manner, with tools and methodologies that are available from the IAEA for long-term planning of energy systems, and in particular, nuclear energy systems. Twenty-two participants from 13 countries learned about the necessity of long-term planning to achieve and maintain a successful nuclear power program. This training course was led during the first week by Vladimir Koritarov from Argonne’s Division of Decision and Information Sciences, and the second week by Totju Totev from the Nuclear Engineering Division. The IAEA was represented by the following experts: Ismael Concha Perdomo, Frank Depisch, Randall Beatty, Brian Waud, and Marco Gasparini.

MANAGEMENT SYSTEMS AND DEVELOPMENT OF THE SAFETY CULTURE

Immediately following the INPRO course, we welcomed 39 participants from 32 countries for “Management Systems and Development of the Safety Culture” from August 22 – September 2. The purpose of this training course was to help current or future owners/operators, regulators, suppliers and other organizations connected to nuclear facilities and activities to establish management systems that meet IAEA requirements. The course enabled Member States embarking on or expanding upon a nuclear energy program to develop, implement, assess and continually improve management systems. The course incorporated international best practices, as well as information to enhance safety and improve quality management and quality assurance in all the phases of developing a nuclear power plant - from feasibility studies, to siting, design, construction, commissioning, operation, and decommissioning. This course was led by Joseph Braun from Argonne’s Nuclear Engineering Division. Jongile Majola represented the IAEA for this training course.

QUALITY ASSURANCE IN THE PHYSICAL AND TECHNICAL ASPECTS OF RADIOTHERAPY

The International Programs was also pleased to host 18 participants from 15 countries for “Quality Assurance in the Physical and Technical Aspects of Radiotherapy” from September 12-23. The purpose of the course was to offer a comprehensive view of the principles of radiation physics applied to radiation oncology. The training course provided information regarding the physical and technical aspects of radiotherapy as well as the principles of quality assurance in the treatment’s delivery, which are to be applied no matter which technology is used. The course furthermore sensitized participants to the role they play within the larger picture of cancer care delivery, and to the need to optimize limited country resources through careful planning at the national level in line with objectives pursued by IAEA’s Programme of Action for Cancer Therapy (PACT). This course was taught by the staff from the University of Texas, M.D. Anderson Cancer Center, led by Francisco Aguirre. Additional contributions were also made by experts from the Mayo Clinic, University of Western Ontario, UPMC Cancer Center, and the University of Wisconsin.

Roadmap to IAEA

At the start of any road trip, you know your starting point and final destination, and begin by plotting your course – identifying a series of sequential checkpoints that will get you there. Why should you treat your career any differently? The following are some tips for students and young professionals to consider as they map out their career paths to the International Atomic Energy Agency (IAEA).

1) BEGIN WITH THE END IN MIND

Steven R. Covey, in his popular book [The Seven Habits of Highly Effective People](#), would encourage you to self-discover and clarify your deeply important life goals. Once you've identified those goals, experience will tell you that you're more likely to achieve them if you keep them in mind and take baby steps towards them (think New Year's resolutions). It's easy to say you want to become bilingual, but your odds of success greatly increase if you enroll in a class or purchase Rosetta Stone.

Practical application: Monitor IAEA vacancies you would like to eventually be qualified for. You may only be qualified for a P-2 right now, but if you want to be a P-5 Medical Physicist, by keeping up with relevant position descriptions you can identify ways you need to develop professionally – for example, if you need to gain a certain amount of clinical experience or increase your knowledge of quality assurance programs.

2) ADVANCE YOUR EDUCATION

Professional staff positions at the IAEA require at least a bachelor's degree, but most vacancies above the P-3 level are looking for advanced degrees (masters and sometimes PhDs). While relevant experience is obviously paramount to getting a job, you'll be competing for positions against well-qualified candidates who have both experience and more than one degree, so to stay top tier, plan to continue your education.

3) GO GLOBAL

The IAEA wants to know that you can be successful in a multi-cultural environment. Look for opportunities to gain professional experience at an international level.

Practical application: Volunteer through organizations with purposes parallel to the IAEA's such as Chemists Without Borders, or consider advancing your education in university programs that facilitate study abroad or overseas service learning projects, such as U. of Penn Engineering.

4) BE SOCIAL

Start now and build up your network. Join relevant organizations such as the American Nuclear Society, go to conferences, and participate in professional online forums. Not only are these great environments to learn in, but you can establish relationships that may open future doors.

Practical application: Join our Americans @ IAEA group on LinkedIn to keep up with IAEA news and connect with current and former IAEA staff.

5) STEP ON SOME STONES

Only Superman gets to the top with one giant leap, and even "entry-level" positions at the IAEA require experience. Prepare to pay your dues like everyone before you and don't underestimate the value of time clocked at respected employers.

Practical application: Consider interning or applying to positions at national labs, government agencies, and other UN organizations. For example, if you want to help IAEA fight food scarcity in developing countries, look for openings at the U.S. Department of Agriculture (USDA), World Organization for Animal Health (OIE), or the Food and Agriculture Organization (FAO).

6) APPLY AND APPLY AGAIN

Remember that employment at the IAEA is often a matter of good candidates persisting. Not only is the process competitive (sometimes with hundreds of applicants applying for each position), but other factors such as geographical distribution and gender balance also play in the selection process.

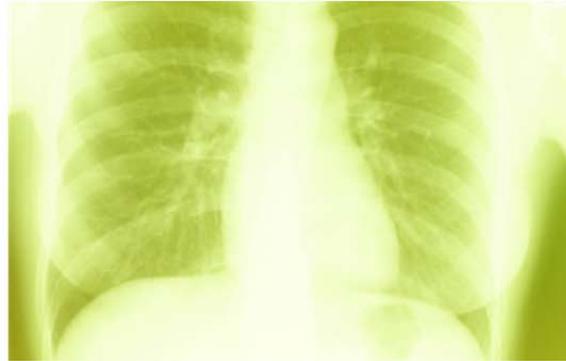
To stand out, make sure that you're applying selectively (IAEA looks for a "perfect match"), and take the advice of Marianne Green, Assistant Director of Experiential Programs at the University of Delaware, who wrote an excellent article in the 2010 issue of NACE *Job Choices for Science, Engineering and Technology Students* titled "From Student to Professional." In it she suggests that the key to marketing yourself to employers is to translate your activities and experiences into the skills and attributes employers want in potential employees – don't just give the facts; interpret them. Your applications should show how each of your jobs and experiences demonstrated or added to your qualifications for each specific position at the IAEA. That's easy to do when you've followed a strategic plan.



Fellowships

During the third quarter, 16 IAEA fellows underwent training in the United States. The fields of training varied widely and included research reactors, nuclear and atomic physics, nutrition, quality management of radiopharmaceuticals and medical exposure control.

HIGHLIGHT: NUCLEAR MEDICINE AND MEDICAL EXPOSURE CONTROL



Since 2001, approximately 114 IAEA fellows have been trained in the United States in fields related to human health. These studies varied from nuclear medicine to medical physics to the assessment of micronutrients in nutrition. During this time, an additional 88 received training in nuclear safety and security, including 11 in the field of medical exposure control.

In July, Massachusetts General Hospital hosted a large group fellowship in the field of medical exposure control, consisting of nine fellows from Bosnia & Herzegovina, Bulgaria, Croatia, Israel, Latvia, Macedonia, Serbia, Slovakia, and Sri Lanka. The objectives of the group fellowship revolved around radiation protection in radiology and covered patient dose management in computed tomography, digital imaging, mammography and interventional procedures. The training program evaluated each participant's baseline knowledge of radiation dosing and included didactic lectures, hands-on sessions and image-based learning.

In September, Massachusetts General Hospital also began training an IAEA fellow from Thailand in nuclear medicine imaging. The 10-month fellowship will provide the fellow with unparalleled exposure to a wide assortment of clinical cases and regular conferences, including weekly case conferences and didactic lectures on topics related to nuclear medicine. A major focus of the training will be centered on the fellow's collection and analysis of nuclear medicine imaging data and related medical information. The fellow will also help write associated manuscripts based on these studies.

Upcoming Winter Activities

The International Programs anticipate a busy fourth quarter.



TRAINING COURSES: The final quarter of 2011 will be busy with four IAEA training courses taking place at Argonne. From October 3-14, the "International Seminar on the Essential Elements of Nuclear Security" will be held, providing approximately 36 participants from 15 countries with an intense contemporary survey of issues and activities regarding the various aspects of nuclear security. Shortly thereafter, 23 people from 12 European countries are expected to attend the "Regional Training Course on Safety Assessment of NPPs to Assist Decision Making" that will be held during October 17-28. In November, 42 participants from 32 countries are currently expected to attend the "Regional Training Course on Leadership and Management for

Introducing and Expanding Nuclear Power Programmes," and in December, the "Training Course on the Application of Graded Approach in Research Reactors" will be provide guidance in recognizing that a graded approach is needed to reflect the differences in the size of organization, the function of the facility and the hazard potential.

STAFFING: During the final quarter, the IP staff will recruit Americans for IAEA careers at the Society of Women Engineers (SWE) Conference to be held in Chicago, IL from October 13-15, and at the American Nuclear Society (ANS) Annual Winter Meeting to be held in Washington, DC from October 30 to November 3.