

Inside The Library

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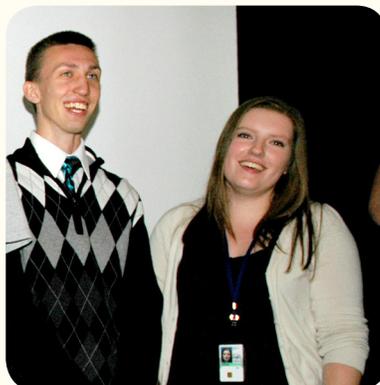
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LIBRARY HOURS

Monday - Friday
8:30AM - 5:00PM



Who's Using the FNLCR Scientific Library?

For this issue we asked the winners of the 2013 Student Science Jeopardy Tournament, Jen Hofmann and Theodore Nikolaitchik, and their mentors, Dr. Kirill Afonin and Dr. Tom Schneider respectively, to write about their recent experiences.

Jen Hofmann, a senior at Tuscarora High School

I'm not entirely sure what I was expecting when I walked into the auditorium the morning of this year's Science Jeopardy Tournament, but I certainly didn't anticipate it to be such a down-to-the-wire competition!

Although we made it through our preliminary match fairly easily, the final match was an entirely different story. The other two teams (including the returning champions) were lightning fast on their buzzers, and although my partner Theo and I knew almost every answer, we were having trouble buzzing in time.

Having been behind for most of the match, we managed to tie it up for second place going into Final Jeopardy because of a few lucky Daily Doubles. Being a long-time Jeopardy fan, I have always wanted to say "Let's make it a true Daily Double, please." And because luck was on our side that morning, I ended up saying it twice in the span of a few hours!

Knowing we had nothing to lose, we decided to wager all of our points on the "General Science" question. In the end, our bold wagers won us the game and gift cards to Barnes and Noble!

Competing in the Jeopardy tournament was definitely one of the highlights of my summer here at the FNLCR, and I would highly recommend it to any SIP next year! (See Page 4)

**Frederick National Laboratory for Cancer Research
Scientific Library, Building 549 ~ On the web at: www-library.ncifcrf.gov
Main Phone Number: 301-846-1093 ~ Circulation: x 5848 ~ Reference: x 1682
ATRF Library ~ E2003, 2nd Floor ~ Main Phone: 301-228-4942**

ATRF Library Corner

Tuesday, August 20, 2013 marks the **One Year Anniversary** of the opening of the ATRF Library. Conceived of as an all electronic information center, the ATRF Library has evolved in response to patron needs. A small, green and white suggestion box waits for your suggestions on a table in the hall in front of the Library. You may also present suggestions, live and in person, to any librarian on duty. One change we implemented based on patron recommendations is the addition of a small collection of paper journals, books, and a newspaper for those who would like to browse the scientific literature or news during lunch or break time. Librarians also provide ATRF patrons with print materials or DVDs from the FNLCR Library upon request.

The Library partnered with the Culture Club during National Women's History Month to help promote and present the well attended **Women In Science** program. Other partnerships are welcome.

To save ATRF patrons valuable travel time back and forth from the FNLCR main campus, the Library offered classes and programs for them on site, including the **Principles Of Clinical Pharmacology** class, **Endnote** classes, and the **Human Planet** video series.

The Library now has a book drop that patrons can use for returning books after hours. Look for the blue, white, and brown box with red lettering that says "Return Books Here".

The Library is also happy to announce that ATRF patrons may now send faxes, and emails from the Library's copier. Talk to one of our librarians to get the facts on sending a fax.

Thanks to all of our patrons for their suggestions and support over the past year at the ATRF.



Training Classes

When and Where You Need Them

Please watch for announcements about the Library's Fall 2013 instructional class schedule, currently in development by our Training Team. We welcome your suggestions on classes that you would like us to offer. For full descriptions of all classes we have offered, visit our list at [http://www-library.ncifcrf.gov/libclass.aspx](http://www.library.ncifcrf.gov/libclass.aspx).

Remember - our librarians will work with your schedule to provide one-on-one training at your convenience, either on the FNLCR campus or at the ATRF. If you have any questions about instruction, please contact us at NCIFredLibrary@mail.nih.gov.

Library Orientation

Library Orientations, held in the Library's Technology Training Lab in Building 549, require no registration. We encourage all new (and not-so-new) employees to attend one of the upcoming orientations to learn about the many services and resources offered by the Library. If you are unable to attend these sessions, please contact the Library at x1093 or NCIFredLibrary@mail.nih.gov to schedule an alternate session.

Wednesday, September 11, 2013, 2:30 p.m.

Featured Websites

Interactive HIV/AIDS Database

<http://www.census.gov/population/international/data/hiv/>

The U.S. Census Bureau recently launched an interactive global resource on the prevalence of HIV infection and AIDS cases and deaths. Originally developed in 1987, the database now holds over 149,000 statistics from more than 12,000 articles in international scientific and medical journals, individual countries' annual HIV/AIDS surveillance reports, and papers and posters presented at international conferences.

The Lancet Global Health

<http://www.elsevier.com/journals/the-lancet-global-health/2214-109X>

The newest Lancet journal, **The Lancet Global Health**, launched in June 2013, offers new research, comment, and correspondence from across the field of global health, and is published alongside **The Lancet Global Health** blog. The blog will provide a forum for discussion and debate among global health practitioners. The freely available online journal aims to present high-quality research with relevance to practitioners and communities in low- and middle-income countries.

New Journals Added to Collection

The AACR has added a new journal title to its already comprehensive suite of cancer research titles. The new title, **Cancer Immunology Research**, will appear monthly. The new journal features articles that will combine the disciplines of cancer research and immunology in order to develop more effective treatment strategies and improve clinical outcomes. Online access to this title is available from the Library's Online Journal list or in print at the Building 549 Library.

A recently requested journal title, **Journal of Porphyrins and Phthalocyanines**, has been added to the Library's online journal collection. According to the publisher, JPP "covers research in the chemistry, physics, biology and technology of porphyrins, phthalocyanines and related macrocycles." In more pedestrian terms, the journal deals with the synthesis, characterization, and applications of these compounds.

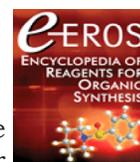
Finding Scanning Errors in Online Full-text Articles

Have you discovered an older article missing from an online journal issue, or downloaded an article with graphics too dark to decipher? Or perhaps you've found that some pages in online articles are illegible? If you have, you aren't alone. In such cases, we invite you to contact us, and we'll report the problem to the publisher. We've discovered that the publishers we've contacted (e.g. Elsevier, Wiley, Springer) are very grateful to know about them. They will re-scan the article and generally let us know when a corrected version is available. Please do not hesitate to contact us at NCIFredLibrary@mail.nih.gov when you find a scanning error and we will take care of reporting them for you.

Resource of the Month

September – **e-EROS: Encyclopedia of Reagents for Organic Synthesis**

<http://onlinelibrary.wiley.com/book/10.1002/047084289X>



Designed and developed by chemists to enable the user to find the most suitable reagent or catalyst for performing particular reactions, **e-EROS** is a database of over 70,000 reactions and 4,000 of the most frequently consulted reagents. Searchable by structure and sub-structure, reagent, reaction type, experimental conditions, and keyword, **e-EROS** combines the complete text of the **Encyclopedia** with a database including all the chemical reactions and structures. System requirements include ISIS/DRAW, ChemDraw, or Java applet to enter structure queries.

Access to **e-EROS** is available from the Online Books and Databases lists. If you have questions about or need assistance using **e-EROS** or any resources provided by the Library, please contact us at NCIFredLibrary@mail.nih.gov.

I'll Take "Science Facts" for 100, Alex



"Science Facts" was just one of many categories that appeared in July's **7th Annual Student Science Jeopardy Tournament**. The top three winning teams were: 1st place: Jen Hofmann and Theo Nikolaitchik; 2nd place: Pushkar Aggarwal and Edward Liang; 3rd place: Nikhil Gowda and Madelyne Xiao.

The other players included Janine Bahsali, Esther Shafer, JT Bergman, Colin Burr, Katie Goetz, Monica Gouzoulis, Dahlia Kronfli, Megan Mounts, Harrison Boyce, Avilash Das, Ayush Goyal, and Amil Sahai. Swathi Penumutthu and Renee Purtscher were the alternates.

Many thanks to judges Dina Sigano and Jim Cherry, and Conference Center staff Colin Celaya and Susan Skidmore, for all their help.

Thanks to everyone who came to watch. At the end of the Tournament there were so many people in the audience that the sound levels in the auditorium soared!

Who's Using The Frederick National Laboratory Scientific Library?

(Continued from Page 1)

Theodore Nikolaitchik, a senior at Tuscarora High School

Jen Hofmann and I entered the Jeopardy tournament never expecting to win. Both of us had been involved in Academic Team in school and she had been team captain in the previous season. We had experience with trivia competitions before, but after scoping out the strength of our competition, we determined that victory was nowhere near assured. These were, after all, some of the brightest kids from the surrounding schools. They had all been accepted into the Werner H. Kirsten summer program. Nevertheless, as soon as we heard that there would be a Jeopardy tournament, we entered as a team.

So, when the big day came I was very excited. I arrived in full regalia, sporting a blue striped tie, an argyle sweater, and dress pants. I instantly felt overdressed. Jen and I scoped the room for our opponents. Among them we saw familiar faces of other students who we had encountered before during Academic Team. Nervously, we both took our seats to wait for our turn in the preliminary rounds.

After the game, I realized that the incredible tension of the final match stemmed from the fact that the three strongest teams were separated in the preliminary rounds. Those three teams facing off together in the final round is what gave the match its intensity. I won't shy away from the fact that Jen and I won because of a great influx of luck. We were losing badly in Single Jeopardy and only by some miracle did we manage to get both Daily Doubles in the second round. In the end, Jen and I bet everything in the final round and won because the other team accidentally didn't bet the amount they intended.

Whatever the circumstances, that hour shall stand as one of the most nail-biting in my life. I hope to enter again next year and again match wits with some of the most intelligent people around.

Dr. Kirill Afonin (Jen's mentor), Center for Cancer Research Nanobiology Program

At the beginning of June, Jen Hofmann joined our laboratory as a summer intern student of the Werner H. Kirsten program. Over the past three years, I have had the opportunity of co-mentoring with Dr. Bruce Shapiro a total of five SIP students and Jen, so to speak, is the "third generation" of interns working with me. Currently, she is successfully learning the basic techniques of RNA biology and carrying out some experiments together with the former SIP students Marissa Stepler and Alison Sappe, who kindly decided to stay with us during this summer and assist in teaching our new interns. Jen Hofmann and Ashley Vrzak (another SIP student) are currently helping me on several research projects dealing with RNA-based therapeutic nanoparticles. Their duties include RNA preparative techniques, fluorescent analyses of RNAs, and work with different cell cultures.

We chose Jen for this position from a number of highly qualified and motivated students for several reasons – Jen exhibited an excitement for science, and her desire to be a part of our team made her stand out from the other applicants. Also, she was able to cohesively answer my interview questions in a knowledgeable manner.

I think I can safely speak on behalf of the entire team when I say that it has been a great help and privilege for us to have all our interns as a part of the Werner H. Kirsten program. All our interns have professed a deep dedication to research and its applications in the world, and their engagement expands the possibilities and brings up the quality of the whole lab!

Dr. Tom Schneider (Theo's mentor), Gene Regulation and Chromosome Biology Laboratory

Theo Nikolaitchik joined my group in the Gene Regulation and Chromosome Biology Laboratory in the summer of 2013 through the Werner H. Kirsten Student Intern Program. Previous SIP students have built bioinformatics tools and have made a number of scientific discoveries. One of the most important was Mike Stephens and I inventing sequence logos, which are now widely used to show patterns in DNA, RNA, and proteins.

All of our work is based on the mathematics underlying modern communications systems and information theory, developed at Bell Labs by Claude Shannon and published in 1948. I discovered that this mathematics is a perfect fit to biological systems, with a wide variety of applications, including predicting the effect of sequence changes on RNA splicing in various diseases such as the skin cancer Xeroderma Pigmentosum.

Theo is using our information-theory based tools, including sequence logos and sequence walkers, to construct a model of CTCF. CTCF is involved in chromosome structuring, blocks RNA polymerase, and creates a boundary between active and inactive DNA. With luck we will build and verify a model of CTCF. We are collaborating with the laboratory of Mikhail Kashlev who will be able to test our model.