



Center for Cancer Research
Volume 18 | Issue 2
Summer 2019

CCR Fellows & Young Investigators

Newsletter Special Edition: 19th CCR-FYI Colloquium



The 2019 CCR-FYI Colloquium Planning Committee: (left to right) Rachel Lokanga, Xiaoyun Bai, June Guha, Snehal Gaikwad, Debashree Basudhar, Molly Congdon, Leila Toulabi, Emine Guven-Maiorov, Allison Cross, Amy Funk, Manasi Apte, Sarwat Naz, Masud Md Alam, Srikanta Basu, Jessica Eisenstatt, Jonathan Wiest, Julia Scheiermann, Susana Najera

***From the Editor-in-
Chief's Desktop***

Claire E. McCarthy

We are excited to present this special edition of the FYI newsletter about the 19th CCR-FYI annual colloquium! In this issue, you can read about keynote talks from the colloquium related to “Innovation and Discovery into Clinical Breakthroughs: Shaping the Future of Cancer Research,” articles about career development workshops, and panel discussions about different scientific careers.

We hope this summary of the 2019 colloquium will help you reflect on the 2019 meeting and look forward to next year’s 20th CCR-FYI colloquium.



*The Chairs of the 2019 CCR-FYI Colloquium (left to right):
Jessica Eisenstatt, Sarwat Naz, Molly Congdon, and Amy Funk.*

CCR-FYI Newsletter Editorial Team

Editor-in-Chief – Claire E. McCarthy

Managing Editor – Alida Palmisano

Contributors – Molly Congdon, Sarwat Naz, Jessica Eisenstatt, Allison Cross, Snehal Gaikwad, Veena Somasundaram, Debashree Basudhar, and Dorothy Butler

The CCR-FYI Association is supported by the CCR Office of the Director, National Cancer Institute

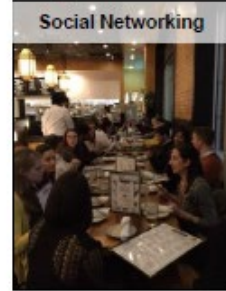
Highlights from the 2019 CCR-FYI Colloquium



Former NCI Director
Ned Sharpless, M.D.



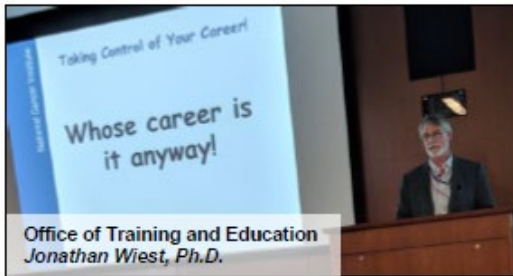
Resume and CV Critiques



Social Networking



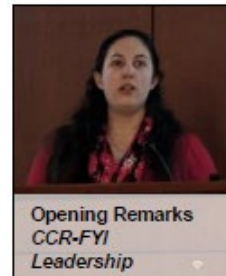
Academic Career Panel



Office of Training and Education
Jonathan Wiest, Ph.D.



Keynote Speaker
Rosandra Kaplan, Ph.D.



Opening Remarks
CCR-FYI
Leadership



Keynote Speaker
Irving Weissman, M.D.



Poster Presentations



2019 Planning Committee

Photos courtesy of the 2019 Colloquium Planning Committee



Outstanding Postdoc
Joshua Welch, Ph.D.

Table of Contents

19th CCR-FYI Colloquium: Bringing Fellows Together to Advance Cancer Research.....	5
Keynote talk: Dr. Irving Weissman “Normal and Neoplastic Stem Cells”.....	8
Keynote Talk: Dr. Rosandra Kaplan “Understanding the Metastatic Niche”	10
Keynote Talk: Dr. John Brognard “Mining the Unexplored Kinome for New Therapeutic Targets and Mechanisms of Tumorigenesis”	12
Keynote Talk: Dr. Andrea Kasinski “Exploring the Essential Dark Matter of the Genome”	14
When the Scientist Becomes the Cancer Patient	16
Transition: Post-doctoral Fellow to Tenured Faculty	18
Non-profit Sector Careers: Summary of the Panel Discussion	21
Industry Career: A summary of the panel discussion.....	23
Marketing Yourself for Career Success	28
Networking – Be Your Memorable Self.....	30

19th CCR-FYI Colloquium: Bringing Fellows Together to Advance Cancer Research

By Molly D. Congdon and Sarwat Naz

The 2019 Annual CCR-FYI Colloquium “Innovation and Discovery into Clinical Breakthroughs: Shaping the Future of Cancer Research” was a jam-packed event full of keynote speakers and fellow presentations, as well as informative career advancement panels and workshops. For two days, fellows from all campuses descended upon the NCI Shady Grove campus to present their work, learn about the science being conducted at the NCI, network with colleagues, and prepare for the next stage of their careers.

The first day started with remarks from Dr. Molly Congdon, CCR-FYI Co-Chair, and Dr. Jonathan Wiest, Director of the Center for Cancer Training (CCT) and Office of Training and Education (OTE) and CCR-FYI advisor, encouraging fellows to take advantage of the opportunities presented by the CCR-FYI, NCI’s CCT, and the NIH Office of Intramural Training and Education (OITE), to increase their marketable skills, professional development, investigate various career opportunities, and take charge of their career paths by planning for the future.

This year’s colloquium featured four outstanding keynote speakers. Dr. Andrea Kasinski (Purdue University) and Dr. Irving Wiessman (Stanford University) gave compelling presentations on “Exploring the Dark Matter of the Genome” and “Normal and Neoplastic Stem Cells,” respectively. Additionally, the NCI’s own Dr. John Brognard (NIH, CCR, Laboratory of Cell and Developmental Biology) gave a presentation on his research “Mining the Unexplored Kinome for New Therapeutic Targets and Mechanisms of Tumorigenesis”, while Dr. Rosandra Kaplan (NIH, CCR, Pediatric Oncology Branch) shared her research titled “Deconvolution of the Metastatic Niche Microenvironment, on a Path to Treat New Approaches to Treat Metastasis.” This year’s keynote speakers were as excited to be partaking in the Colloquium as the NCI fellows, asking inquisitive research questions, as well as engaging in career panels and workshops. “Excited to be part of #ccrfyi2019 and to discuss the labs findings” Dr. Kasinski tweeted during the event.

On the first day of the Colloquium, former NCI Director Dr. Ned Sharpless delivered an engaging, advice-laden talk to the fellows. His “powerpointless” conversation style presentation facilitated an intimate discussion with the fellows focused on challenges in

science and navigating one's individual career path. During his talk he touched upon experiences in his own career as he transitioned from a physician in training, to a professor, and to the director of the NCI. As Kimberly Meza (Fellow, Basic Research Laboratory) tweeted, Dr. Sharpless was "inspiring the upcoming generation of cancer scientists."



This year's Colloquium also featured a unique, inspirational Survivorship speaker, Dr. Cynthia Zahnow (John Hopkins Medical School). A breast cancer survivor herself, Dr. Zahnow shared her personal story, her struggles, and the unique challenges faced by one who fights cancer both internally and at the bench. Her emotional talk "When the Scientist Becomes the Cancer Patient," reminded everyone in the audience of the big picture of why we do research in the first place.

The CCR-FYI Colloquium also provided the opportunity for fellows to exhibit their work. Dr. Joshua Welsh, the 2019 Outstanding Postdoctoral Fellow Award winner in Dr. Jennifer Jones' group within the Laboratory of Pathology, presented his work on the "Next Generation Extracellular Vesicles Studies for Cancer Research." Additionally, over 160 NCI fellows presented their work in multiple concurrent oral and poster presentations while their colleagues eagerly packed the various conference rooms to learn more about the interdisciplinary research occurring within the NCI. These presentations also provided fellows with the opportunity to network with colleagues from all of the NCI campuses. As Avi Sachs (Fellow, Surgery Branch) tweeted:



"Excellent day presenting and hearing about interdisciplinary, cutting-edge cancer research. Lucky to work at an institution that can bring so many inspiring projects together."

The CCR-FYI Steering Committee and Colloquium Planning Committee members also attentively judged the oral and poster presentations, identifying exceptional fellows to win travel awards, which were announced during the 2019 Colloquium closing remarks. "Had a great time sharing my research at #CCRFYI2019. Thanks for selecting me for an

outstanding poster presentation travel award” tweeted Gabriel Starrett (Fellow, Laboratory of Cellular Oncology).

Both afternoons of the Colloquium focused on preparing fellows for the next stage of their careers. The 2019 Colloquium featured four career panels to help fellows determine what type of career is best for them. These panels focused on traditional academic and industry career paths, as well as less thought of scientific careers in the non-profit and biotechnology start-up career sectors. Two workshops were held this year to assist fellows with enhancing their marketable skills and moving onto the next stage of their careers. This year’s workshops, “Networking” with Dr. Elizabeth Jeanne Thatcher (Pfizer), and “Resume Writing and Elevator Pitches” with Dr. Janice Morand (University of California), gave fellows the opportunity to improve their understanding of and increase their networking skills, refine their elevator pitches, and learn how to prepare their resumes and CVs when they are ready to enter the job market.

The following articles in this special “Colloquium Edition” of the CCR-FYI Newsletter expand these brief highlights of the events from the 2019 Annual CCR-FYI Colloquium. It is the hope of the CCR-FYI Committee that these summaries of talks by the keynote speakers and reviews of panels and workshops remind participants of the knowledge they gained during the event and encourage fellows at every stage of training to participate in next year’s Colloquium.

To conclude, we would like to thank everyone on the CCR-FYI Colloquium Planning Committee who put in all the hard work to make this Colloquium such a magnificent event. We would also like to thank the Center for Cancer Training Office of Training and Education (CCT OTE) for their support. Thank you to Dr. Jonathan Wiest for your guidance, support, and humor. Thank you to Nicole Garner for your logistical and organizational assistance with the event. Thank you to Erika Ginsburg and Angela Jones for providing support throughout the Colloquium. Finally, thank you to all the fellows who attended. The event would not have been successful without your participation and enthusiasm. We hope to see you at the 20th CCR-FYI Fellows’ Colloquium next year, March 12-13th, 2020!

Keynote talk: Dr. Irving Weissman “Normal and Neoplastic Stem Cells”

By Sarwat Naz

At the 19th Annual CCR-FYI Colloquium, Dr. Irving Weissman delivered the keynote lecture on “Normal and Neoplastic Stem cells.” Dr. Weissman is an eminent scientist in the field of stem cell biology, developmental biology, and regenerative medicine. His research focuses on studying the generation of myeloid and lymphoid lineages from hematopoietic stem cells and its applications in regenerative medicine. He is currently a Professor of Pathology and Developmental Biology and the Director of the Institute of Stem Cell Biology and Regenerative Medicine at Stanford University School of Medicine. Dr. Weissman, also directs the Ludwig Center for Cancer Stem Cell Research and Medicine at Stanford.



Dr. Irving Weissman
(credit: Weissman)

In his talk, he walked through his scientific journey investigating the biology of stem cells and challenges to translate stem cell therapy into the clinic. He discussed the biology of normal stem cells, hematopoietic stem cells, cancer stem cells, and a little bit about brain stem cells. Furthermore, he summarized the seminal finding from his group in the late 80’s that led to the isolation of a pure population of hematopoietic stem cells free from host versus graft disease. He also described studies from the early 1980s where his laboratory used high-speed cell sorters to isolate stem cells that can form all lineages of blood forming stem cells in mice. He talked about the methodology of using the cell surface markers of Sca-1+, Thy-1.1+, c-kit+, and lin-, to obtain a pure population of hematopoietic stem cells free of other unwanted cells (1). He then showed some translational work of this discovery that led to the first clinical trials in which patients received cancer free stem cells after their blood forming system had been obliterated by chemotherapy (2). His talk was an impeccable example of bench to bedside science.

He also acknowledged contributions of several scientists in the field that helped advance his research to the clinics. His recent research is investigating Cluster of Differentiation 47 (CD47) as a cancer therapeutic and a biomarker identifying cancer stem cells from a variety of blood and solid cancers. He showed work done in his laboratory in 2009, where he and his colleagues identified CD47 on human leukemia stem cells. This cell surface marker acts as a “don’t eat me” signal to macrophages that patrol the body to eliminate infected and diseased cells. Further, blocking the “don’t eat me” signal with a CD47-binding antibody, generated in his laboratory, restored the ability of macrophages to recognize and kill cancer cells in vitro and in mouse models of human disease (3). This 5F9 (human anti CD47) antibody was tested in a phase I clinical trial of patients with advanced solid cancers (4).

The results of the trial indicated that 5F9 was safe and relatively well tolerated in most patients (4).

In addition to sharing his exciting scientific findings, Dr. Weissman also took the opportunity during his lecture to encourage young researchers to be independent thinkers, keen observers of their raw data, and self-directed and confident in their choices.

Dr. Weissman also touched upon his struggles and challenges with funding agency and policy makers in translating his research to clinical applications. He is currently a founder of three companies that are focused on bringing stem cell therapies into the clinic.

In summary, Dr. Weissman described his decades of work that led to the identification and characterization of several stem cells lineages, some of which are currently being used in regenerative medicine. Personally, I believe that his talk was a great example of following one's own intuition in designing and conducting experiments without letting other opinions sway you away from pursuing your research ideas.

References:

1. Spangrude GJ, Heimfeld S, Weissman IL. 1988. Purification and characterization of mouse hematopoietic stem cells. *Science* 241:58–62
2. Muller AM, Kohrt HE, Cha S, Laport G, Klein J, et al. 2012. Long-term outcome of patients with metastatic breast cancer treated with high-dose chemotherapy and transplantation of purified autologous hematopoietic stem cells. *Biol. Blood Marrow Transplant.* 18:125–33
3. Gholamin, S., Mitra, S. S., Feroze, A. H., Liu, J., Kahn, S. A., Zhang, M, et al. 2017. Disrupting the CD47-SIRP alpha anti-phagocytic axis by a humanized anti-CD47 antibody is an efficacious treatment for malignant pediatric brain tumors. *SCIENCE TRANSLATIONAL MEDICINE.* 9 (381)
4. C H Takimoto., M P Chao., C Gibbs., M A McCamish., J Liu., J Y Chen., R Majeti I L Weissman. 2019. The Macrophage 'Do not eat me' signal, CD47, is a clinically validated cancer immunotherapy target. *Annals of Oncology,*30: 486-489.

Keynote Talk: Dr. Rosandra Kaplan “Understanding the Metastatic Niche”

By Jessica Eisenstatt

The forecasted snow held off, and day two of the 2019 CCR-FYI Colloquium proceeded with the keynote address by Dr. Rosandra Kaplan of the Pediatric Oncology Branch, CCR, NCI.

Dr. Kaplan’s research focuses on understanding the tumor microenvironment and pre-metastatic niche to develop targeted therapies.

She began her clinical research as a fellow under Drs. David Lyden and Shahin Rafii at Memorial Sloan Kettering Cancer Center. There, she focused on the role of bone marrow-derived progenitor cells in vasculogenesis and metastasis. She continued to expand upon this research in her translational research lab at the NCI while running clinical trials on cancer immunotherapies.



Dr. Rosandra Kaplan
(credit: CCR-FYI
Colloquium Committee)

Dr. Kaplan’s address began by introducing the postdoctoral work of Dr. Meera Murgai, which expanded on Dr. Kaplan’s initial findings that bone marrow-derived hematopoietic progenitor cells expressing Vascular Endothelial Growth Factor Receptor 1 regulate metastasis. Dr. Murgai’s work, [published in 2017](#), investigated the role of the transcription factor Kruppel Like Factor 4 (Klf4) in perivascular mesenchymal progenitor cells in mice. She established that perivascular cells in the lung have enhanced proliferation and migration in pre-metastatic tissue. In these perivascular cells, Klf4 expression was found to be induced, which in turn activated the perivascular phenotypic switching. Knocking out Klf4 in mice resulted in a decrease in the phenotypic switching and metastatic burden. These findings provided a target for therapy against metastatic tumor growth.

Dr. Kaplan then shared an exciting new story from her lab involving Genetically Engineered Myeloid (GEMy) cells. GEMy’s induce interleukin (IL)-12, a proinflammatory cytokine that stimulates T cells. While too much IL-12 is toxic to cells, GEMy cells induce only a moderate amount of IL-12 just enough to be effective. Inspired by this scientific data, Dr. Kaplan shared some life advice: “Be good; not great, not bad.” Basically, be like IL-12 in GEMy cells. Her lab went on to find that GEMy cells reduce tumor burden and metastasis *in vitro* and *in vivo*. Treatment of cultured cells with cyclophosphamide and a low dose of GEMy cells leads to increased survival and decreased tumor growth. This promising finding

was translated into a pancreatic mouse model in which it was shown that survival of GEMy treated mice increased compared to those with no treatment. Her lab also found that GEMy cells support the function of tumor-specific T-cells. Overall, the findings of Dr. Kaplan's lab may contribute to the development of enhanced therapies for tumors.

In addition to presenting her own work, Dr. Kaplan was supportive of the research being presented at the Colloquium. You may have seen her asking questions and offering comments on talks throughout the Colloquium. We thank Dr. Kaplan for her time, advice, and enthusiasm.

References:

1. Kaplan RN, Riba RD, Zacharoulis S, Bramley AH, Vincent L, Costa C, MacDonald DD, Jin DK, Shido K, Kerns SA, Zhu Z, Hicklin D, Wu Y, Port JL, Altoki N, Port ER, Ruggero D, Shmelkov SV, Jensen KK, Rafii S, and Lyden D. VEGFR1-positive haematopoietic bone marrow progenitors initiate the pre-metastatic niche. *Nature*. 438: 820-827 (2005).
2. Murgai M, Ju W, Eason M, Kline J, Beury DW, Kaczanowska S, Miettinen MM, Kruhlak M, Lei H, Shern JF, Cherepanova OA, Owens GK, and Kaplan, RN. KLF4-dependent perivascular cell plasticity mediates pre-metastatic niche formation and metastasis. *Nature Medicine*. 23: 1176-1190 (2017).

Keynote Talk: Dr. John Brognard “Mining the Unexplored Kinome for New Therapeutic Targets and Mechanisms of Tumorigenesis”

By Sarwat Naz

The first day of the 19th CCR-FYI colloquium started with a well-attended keynote lecture by Dr. John Brognard. John is an Earl Stadtman Investigator in the Signaling Networks in Cancer Section of the Laboratory of Cell and Developmental Signaling at NCI Frederick. His research focuses on identifying and characterizing novel cancer-associated kinases in the unexplored kinome using bioinformatic and functional genomics approaches. The overall goal of his research is to provide a platform to identify novel druggable drivers for therapeutic intervention in cancer patients. This precision-based medicine approach has the potential to directly benefit cancer patients in the clinic.



Dr. John Brognard
(credit: Brognard)

*John began his lecture by encouraging young PhDs
to explore all the given opportunities around them and to expand their
network for a successful research career.*

He gave the example of his journey in science. He started his scientific journey as an intern at NCI and then moved to west coast to complete his PhD and postdoctoral fellowship. He then went on to join the CRUK Manchester Institute as a group leader in 2010 and then moved back to NCI as the Earl Stadtman Investigator in the summer of 2016. His training in different institutes and regions helped him build a strong network with scientists in academia and industry. Currently, his lab has several ongoing collaborations with pharmaceutical companies, including Genentech and AstraZeneca, to investigate novel inhibitors targeting newly identified kinases implicated in cancer.

After sharing his career journey, John talked about his research on unexplored kinases that are also drivers of cancer. He presented the work on head and neck squamous cell carcinoma (HNSCC) done by two of his postdoctoral fellows, Amy Funk and Pedro Torres-Ayuso. HNSCC tumors are driven by frequent copy-number alteration, the most common of which is gain of 3q, the long arm of chromosome 3 (1). Drivers identified on the HNSCC, 3q amplicon have displayed limited success in the clinic due to lack of small molecule inhibitors against these drivers. Thus, additional targetable drivers must be identified to improve

outcomes for HNSCC patients. Amy's research examined data from The Cancer Genome Atlas (TCGA) of HNSCC tumors and identified high-level amplification of MAP3K13 (LZK) in up to 20% of head and neck squamous cell carcinoma (HNSCC) tumors. Further analysis of the TCGA tumor samples indicated that higher LZK copy-number was associated with significantly increased mRNA expression. Drs. Funk and Torres-Ayuso investigated the role of LZK in HNSCC cell lines in vitro and in vivo. Data from these studies showed that silencing of LZK reduces the cell viability, proliferation, and colony-forming capabilities of HNSCC cells with a 3q gain. Additionally, LZK silencing reduced tumor growth in a xenograft mouse model of HNSCC. Mechanistically, LZK also regulated Myc expression and AKT activation in a kinase-dependent manner.

John also showed ongoing efforts in his laboratory in collaboration with Dr. Rolf Swenson at NCI to develop and test Proteolysis Targeting Chimeras (PROTACs), a technology that harnesses the Ubiquitin Proteasome System to induce the degradation of specific target proteins, such as LZK. At the end of his talk, he showed unpublished data highlighting bioinformatic screening approaches to identify targetable mutations in various cancers with unmet needs for therapeutic intervention.

In summary, John described his recent work examining the role of the novel and druggable kinases from the unexplored kinome and its application in precision cancer medicine.

References:

1. Cancer Genome Atlas N. Comprehensive genomic characterization of head and neck squamous cell carcinomas. *Nature*. 2015
2. Edwards ZC, Trotter EW, Torres-Ayuso P et al., Survival of Head and Neck Cancer Cells Relies upon LZK Kinase-Mediated Stabilization of Mutant p53. *Cancer Res*. 2017

Keynote Talk: Dr. Andrea Kasinski “Exploring the Essential Dark Matter of the Genome”

By Molly Congdon

During the afternoon of the first day of the 19th Annual CCR-FYI Colloquium, Dr. Andrea Kasinski delivered the first of two extramural keynote lectures. Dr. Kasinski is currently the William and Patty Miller Assistant Professor of Biological Science at Purdue University. She began her scientific journey into understanding signaling and cancer biology as a graduate student at Emory University. During her postdoctoral fellowship at Yale University, she shifted her focus and studied the abnormal regulation of small non-coding RNAs in cancer. Building upon this scientific foundation, Dr. Kasinski’s laboratory now focuses on the potential application of these small RNAs as cancer therapeutics.



Dr. Andrea Kasinski
(credit: Kasinski)

In her keynote lecture, Dr. Kasinski outlined the underexplored “dark matter” of genome and presented her laboratory’s efforts to treat breast and lung cancers by selectively delivering therapeutically-relevant small RNAs.

The “dark matter” that Dr. Kasinski is referring to is microRNA (miRNA). In 1993 two separate labs published reports on *Caenorhabditis elegans*. One group reported that the genomic sequence encompassing *lin-4*, a heterochronic mutant gene, did not encode a protein and identified two small non-coding *lin-4* transcripts. The second group identified segments of the untranslated region of the *lin-14* sequence that were complimentary to the *lin-4* small RNAs. Unknowingly these groups stumbled upon the novel posttranscriptional mechanism in which *lin-4* can regulate its effects on *lin-14* through the interactions of an antisense RNA duplex. These works not only revealed a new type of non-encoding RNA regulatory mechanism but established a new model that challenged the central dogma. By the early 2000s, these small non-encoding RNAs had been coined miRNAs. Furthermore, multiple studies provided evidence that miRNAs were conserved throughout evolution and suggested that miRNAs could be a standard gene regulatory mechanism in eukaryotes.

Only one year after the discovery of the first human miRNA (*let-7*) in 2001, the first miRNAs (*mir-15a* and *mir-16-1*) associated with cancer were discovered. Within a few years, over 98 miRNAs had been discovered and associated with genetic sites or mutations involved in cancer. Furthermore, studies suggested miRNAs could act as oncogenes. For

the next decade, efforts focused on determining the function miRNAs in cancer and their potential as cancer therapeutics. The first miRNA to reach clinical trials was miR-34a in 2013.

One of the biggest challenges still facing the advancement of miRNA therapeutics is delivery. During her presentation, Dr. Kasinski discussed the success and challenges of delivering miR-34a to tumors using poly lipid gold nanoparticles and Smarticles (particles that aide targeted drug delivery as a result of their ability to morph from anionic particles to neutral or positively charged particles). By using these particles, Kasinski's lab was able to reduce tumor growth and burden in non-small cell lung cancer upon delivery of the tumor-suppressive miRNA-34a. Her lab further improved their delivery method by employing a folate (FolamiR) miR34 conjugate (comprised of folate, a spacer, cleavable linker, and miR34 warhead). With this approach, they were able to deliver functionally active miRNAs to cancer cells while simultaneously reducing toxicity. The selectivity of this ligand-targeted, vehicle-free delivery strategy takes advantage of the overexpression of the folate receptor in cancer cells versus normal cells and is cleared from the system within a day. Localization was verified in fluorescent studies, which confirmed that the construct was successfully incorporated by cells and into intracellular compartments. By incorporating nigericin, a microbial toxin derived from *Streptomyces hygroscopicus*, into the delivery system, the Kasinski lab was able to promote endosomal escape of the miRNA payload. Nigericin stimulates the influx of potassium ions into endosomes. This influx causes the endosomal environment to more closely resemble the cytosol. As a result, the endosomes swell and burst, releasing more active miR34 into the system. This strategy could be employed in tandem with current chemotherapies to manage cancer.

Along with presenting her research, Dr. Kasinski participated in the Academia Career panel on Thursday afternoon. During the panel she shared her experiences and advice with numerous fellows interested in learning how to navigate the competitive path to a successful career in academia. We extend our deepest thanks to Dr. Kasinski for her time, advice and support of the 2019 CCR-FYI Colloquium.

References:

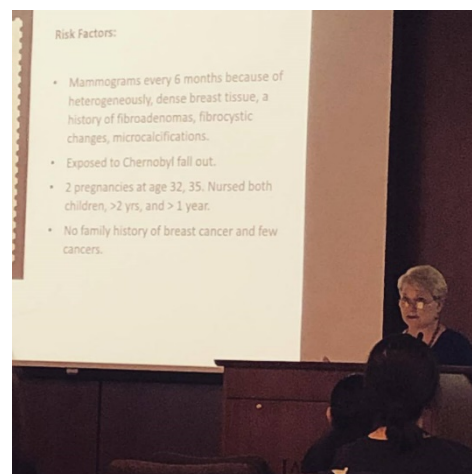
1. Orellana, E. A.; Kasinski, A. L. *Cancers*, **2015**, 7, 1388-1405
2. Orellana, E. A.; Kasinski, A. L. *Oncotarget*, **2017**, 8, (57), 96470-69471
3. Orellana, E. A.; Tenneti, S.; Rangasamy, L.; Lyle, T. L.; Low, P. S.; Kasinski, A. L. *Sci. Transl. Med.*, **2017**, 9, eaam9327
4. Rangasamy, L.; Chelvam, V.; Kandluru, A. K.; Srinivasarao, M.; Bandara, N. A.; You, F.; Orellana, E. A.; Kasinski, A. L.; Low, P. S. *Bioconjug. Chem.*, **2018**, 29 (4), 1047-1059
5. Orellana, E. A.; Abdelaal, A. M.; Rangasamy, L.; Tenneti, S.; Myoung, S.; Low, P. S.; Kasinski, A. L. *Mol. Therapy*, **2019**, 16, 505-518

When the Scientist Becomes the Cancer Patient

By Allison Cross

As a part of the CCR-FYI Colloquium each year, there is a special presentation that is distinct from the rest. This speaker does not share the latest and greatest research coming out of the lab, but instead s/he shares a very personal story of surviving a battle with cancer.

This year's survivorship speaker, Dr. Cynthia Zahnow, was diagnosed with bilateral breast cancer just over 10 years ago. Unlike most cancer patients, Dr. Zahnow is also an accomplished cancer researcher at Johns Hopkins University School of Medicine. At the time, she was studying the same cancer that she was diagnosed with. During her presentation, she shared her experience as a cancer patient and explained how being a patient herself has shaped her research.



Dr. Cynthia Zahnow
(credit: Claire McCarthy)

Dr. Zahnow's battle with cancer began at age 48 when she found a mass in her breast during a self-exam. This mass was undetectable by mammogram; however, an ultrasound and MRI revealed she had two masses, one in each breast. With her diagnosis in hand, she knew she needed an oncologist whom she trusted.

She was lucky to find an oncologist willing to work with her as a colleague, allowing her to be in control of her own care. With the support of her oncologist, Cynthia decided to receive Taxotere/Carboplatin/Herceptin (TCH) alone for her chemotherapy, rather than this same regiment in combination with Adriamycin (ACTH). Cynthia also chose to go on Metformin, a decision she made after performing a pilot experiment in her own lab. She explained that she was aware of the potential benefits of Metformin but unsure if Metformin would interfere with her antiestrogens. Back in the lab, she tested the sensitivity of breast cancer cell lines to treatment with the antiestrogen tamoxifen in the presence or absence of Metformin. After observing no negative impact of Metformin on the sensitivity of these cells to treatment, she approached her oncologist, who agreed to put her on the drug.

At the same time that she was diagnosed with breast cancer, Cynthia was asked to be a part of the [Stand Up To Cancer](#) team working on the epigenetic regulation of cancer. She was passionate about maintaining her identity as a researcher through her cancer treatment and, with the tremendous support of her family, kept working through her chemotherapy. It was through her studies of epigenetic regulators in ovarian and breast cancer that Cynthia met Dr. Dennis Slamon, the scientist whose work led to the development of Herceptin.

Despite not wanting to sound corny, she thanked him for saving her life. She reminded all the young scientists listening to her talk that “One person can make a difference.”

The experience of going through chemotherapy and meeting people that did not survive made Cynthia feel a new urgency with her research.

She reminded the audience of young scientists that people are waiting on these treatments, “waiting on you.”

Her experience also motivated her to switch the research focus of her lab. She explained that although “good basic research will always translate,” switching the focus of her lab from basic research to epigenetic therapies allowed her work to become more translational and get to patients faster.

Transition: Post-doctoral Fellow to Tenured Faculty

By Snehal M. Gaikwad

Panelists

Irving Weissman, MD	Director, Stanford Ludwig Center for Cancer Stem Cell Research
Andrea Kasinski, PhD	Assistant Professor, Purdue University
Rosandra Kaplan, MD	Investigator, CCR, National Cancer Institute
Richard Chi, PhD	Assistant Professor, University of North Carolina at Charlotte
Khadijah Mitchell, PhD	Assistant Professor, Lafayette College
Cynthia Zahnow, MS, PhD	Associate Professor, John Hopkins University School of Medicine

The journey from post-doctoral fellow to tenure-track investigator and establishing oneself as a senior investigator is both competitive and overwhelming. Constructive advice based on the experiences of our six panelists from different faculty career backgrounds (research-intensive to teaching-intensive) offered future academia aspirants some new insights.

The panel discussion started with a question addressed to Dr. Weissman: “How does it feel to be a successful investigator?” To which he replied that “it comes with many responsibilities. A faculty job encompasses the roles of a researcher, a technician, a fund-seeker, a manager and a learner.”

The discussion continued with questions from the audience summarized below.

When asked about the prerequisites to consider when transitioning from a post-doc to a faculty position, the panelists provided a checklist of things that they felt were crucial:

- Have a sound track record of publications (showing productivity during post-doctoral years; does not necessarily have to be in *Nature/Cell/Science*);
- Engage in independent research proposals apart from the current/ previous advisor (additionally a backup research plan);
- Demonstrate grant writing experience;
- Apply to institutes or universities that provides opportunities for professional growth;
- Collect strong letters of recommendation and make sure to submit your application with a sound cover letter;
- And make sure to highlight teaching experience in your resume (for teaching and research-intensive institutes)

Although the amount of independence enjoyed by each panelist, as well as teaching and administrative responsibilities, varied, all the panelists agreed that their career was an excellent fit for their scientific pursuits. When describing strategies that investigators should use to meet career deadlines and for scientific survival, Dr. Kasinski said building up excellent coordination among lab members, setting up expectations for mentees, and scheduling work for efficient time management are important. It is necessary to prioritize between multiple tasks (such as grant or paper writing). A post-doctoral position is a "necessary early step" in transitioning to a faculty career. Being a post-doctoral fellow in NCI, Dr. Mitchell was exposed to teaching opportunities, which helped her craft a teaching philosophy statement - an almost universally required component of most teaching-intensive faculty position applications.

Along with having post-doctoral publications and some preliminary results that lay the foundation of grant and research proposals, applicants for faculty positions should be able to individualize themselves from their advisors. Dr. Chi emphasized learning new skills, obtaining new resources that will support you to branch out from your current area of research, and developing a research niche that adds expertise to independent research proposals. Panelists agreed that while considering grant applications and identifying funding opportunities, new faculty members should try to align their research interest with those organizations. The budget should be planned in advance and funds should be allocated and utilized wisely.

Drs. Chi, Zahnow and Kasinski, highlighted that the single most important factor when applying for a job in academia (apart from the obvious of having appropriate qualifications) is to tailor the application to the institution. Describe the reasons you would be a good fit (like collaborative interactions, filling a technical gap, etc.) and leave an impression on the search committee that you have done your homework.

Dr. Kaplan underscored the role of "mentors" in professional development. Mentors are not necessarily a direct supervisor; though, having a supervisor who is also a good mentor is a plus. According to Dr. Kaplan, mentoring interactions can be informal or formal, short or long, spontaneous or planned. Panelists also suggested discussing research interests with mentors and getting their feedback during the grant writing process and generating new collaborations.

"We all need mentors!"

When sharing their views on selecting laboratory members, all the panelists explained the need for candidates with motivation, eagerness, scientific aptitude, proof in the form of publications (depending on the nature of position), good communication skills, and original thoughts. Candidates should have the maturity and the ability to work independently. On the other hand, as a faculty member, the learning abilities and the aptitudes of the lab members

should be closely monitored, and the expectations should be made clear from the beginning from both sides.

Other important aspects of the discussion were job negotiation and job security. Drs. Kasinski and Zahnow advised looking for an institution that could initially provide fixed salaries for tenure track positions. They all suggested negotiating for startup funds and packages. However, negotiation depends on the institute in which the faculty position is available. Drs. Mitchell and Kasinski prioritized a teaching institution based on location, teaching load, and research components. They voiced that these aspects of a job search can be controlled by an applicant for a faculty career. According to all the panelists, learning new skills, getting more certifications, receiving grants, and publications make it hard for employers to let you go - this strategy adds more to job security and improves the likelihood of moving up the ladder in almost any career.

Lastly, all the panelists agreed on a common notion of “Networking.” Post-docs need to come out of the conventional role of a single investigator locked up in the lab. They should look upon science as a social activity and collaborate with peers. Networking does not imply a separate activity from the daily science life. A successful scientist is interested and engaged in the research and careers of others and creates networks in this way.

Networks can be invaluable and allow you to reach out if you have a scientific question, want to collaborate or to help place one of your trainees.

In a nutshell, transition to a successful faculty career comes with lot of challenges. Using the above advice as guidelines, one can transition into new positions successfully while minimizing the surprises and challenges encountered along the way.

Non-profit Sector Careers: Summary of the Panel Discussion

By Veena Somasundaram

Panelists:

Dana E. Connors, MS, PMP	Scientific Project Manager at the Foundation for the National Institutes of Health
Erin Heath, MSc	Associate Director of Government Relations at the American Association for the Advancement of Science
Sarah K. Martin, PhD	Senior Regulatory Science and Policy Analyst at the American Association for Cancer Research
Geoffrey Hunt, PhD	Director of LabX at the National Academy of Sciences

The non-profit panel was a new workshop introduced at the 19th CCR-FYI Colloquium since there are several potential jobs for scientists in the non-profit sector. The panel was moderated by Leila Toulabi, Research Fellow in the Laboratory of Human Carcinogenesis at NCI and Allison M. Cross, Postdoctoral Fellow in the Genetics Branch at NCI.

Scientific writing, project management, regulatory affairs, policy making, and technology transfer are the main career paths that can be pursued by scientists who wish to move away from the bench. The panel on Non-profit Sector Careers aimed to shed light on this insufficiently explored career path.

The panelists were from Foundation for the National Institutes of Health (FNIH), American Association for the Advancement of Science (AAAS), American Association for Cancer Research (AACR), and from a new project called LabX at the National Academy of Sciences (NAS). They mentioned that the non-profit sector career path can be for PhD scientists as well as non-PhD science lovers. All the panelists had vastly different trajectories that brought them to their current positions.

Dana E. Connors, Scientific Project Manager at FNIH (an association founded by Congress to support the mission of NIH), started his career at a small biotech working in the field of biomarkers. However, he soon realized his calling was in project management and moved to FNIH. In his current position, Dana raises funds for and manages four different Research and Development portfolios by working with a steering committee with representatives from academia, patient advocacy groups, and the Biomarker Consortium. He is involved in a variety of projects and works closely with groups of people with diverse interests. Hence, "people skills" is the secret of his success. Dana said that the non-profit sector may not be the best place for people who like the spotlight.

It is a “behind the scenes” career.

The next panelist, Erin Heath, Associate Director of Government Relations at AAAS transitioned from working as a science policy reporter and columnist to becoming a policy maker who co-chairs the Coalition for National Science Funding. In this job she works with the press to publicize scientific news and policy updates, explains scientific concepts and the significance of scientific discoveries to politicians. Hence, her communication skills and the ability to coordinate diverse groups of people are her biggest assets.

The other two panelists, Dr. Sarah K. Martin, Senior Regulatory Science and Policy Analyst at AACR and Dr. Geoffrey Hunt, Director of LabX at the NAS started as biochemists who transitioned into their current positions through the American Society for Biochemistry and Molecular Biology (ASPMB) Science Policy Fellowship. Unfortunately, this program is no longer available.

Dr. Martin loves the challenge of bridging the gap between the several factions that are involved in the development, evaluation, and regulation of cancer drugs. She is also involved in the phases of development of biologics and diagnostics. She organizes workshops and closed-door meetings between different organizations. Emotional intelligence is the super power that helps her ensure that everyone is on the same page for collaborations that are conflict-free.

Dr. Hunt did not like the politics involved in policy making but found his calling in public outreach. He moved to the NAS and spearheaded their new public engagement project for spreading science awareness, which is now called LabX. Dr. Hunt also drives home the point that to build a career in the non-profit sector:

“One must believe that ‘community is the King’ and attain satisfaction in doing what is best for the public with the available resources.”

In these career paths, success will be slow but sure and tangible. One must never lose sight of the fact that these are indeed “service careers.” Despite the diverse routes that brought the panelists to their current positions, all of them emphasized that emotional intelligence, the ability to recognize and rejoice in small wins, and communication skills are three must-have skills that are great assets in building a fulfilling and successful career in the non-profit sector.

Industry Career: A summary of the panel discussion

By Debashree Basudhar

Panelists:

Katherine Block, PhD	Sr. Clinical Biomarker and Companion Diagnostics (CDx) Lead, AbbVie
Shewit Takeste, PhD	Scientist, BioTherapeutics Development Department, The Janssen Pharmaceutical Companies of Johnson & Johnson
Adam Rubin, PhD	Associate Director, Vaccine Stabilization and Logistics, Sanaria Inc.
Siddarth Chandrasekharan, PhD	Scientist II, Oncoresponse



Industry Career Panel and Moderators: (left to right) Debashree Basudhar, Katherine Block, Adam Rubin, Shewit Takeste, Siddarth Chandrasekharan, and Snehal Gaikewad (Credit: CCR-FYI Colloquium Committee)

Do you want to know how to successfully transition from academia to industry? When we think about making the move, there are so many questions that come to mind. The main goal of the industry panel was to try to get some clarity from these questions:

Is industry the right choice for you?

According to the panelists, the main difference between scientists in industry versus academia is the shift in focus towards solving problems at a fast pace. Research is driven by short term targets and the marketability of new technologies. If this type of work interests you, then an industrial position may be a good option. Additionally, performing a self-assessment of your skills could help you understand how your personal strengths align with the duties of an industrial scientist. Like many trainees, Shewit Takeste was not sure if industry was the right fit for her. She did a lot of informational interviews to figure out what she really wanted. It also helped her to understand the structure of the company and the expectations associated with each position.

When should you transition to an industrial position?

The panelists discussed when they decided to transition to industry and the recipe for a successful transition. Katherine Block worked for a couple of years at Pfizer after her BS, so she knew that she wanted to pursue a career in industry. After her PhD, she did an industrial postdoc with Beckman Coulter to get her foot into the industrial world, then moved to a diagnostics company. Currently, she works as a Clinical Biomarker and CDx team lead at Abbvie. Similarly, Adam Rubin decided to pursue a career in industry during graduate school. He attended a presentation by the CEO of Sanaria Inc. at a scientific conference that got him interested in the company. Later, he had dinner with a scientist from Sanaria where he was able to talk about the company based on what he learned at the conference. This helped him get a scientist position there.

For the other two panelists, it was not a quick decision. Shewit Takeste received her PhD from UCLA and joined the NIH as a postdoctoral fellow. Eventually, she became a staff scientist and was working on small molecule screening strategies for melanoma. Since her project was not moving forward, she decided to explore industrial positions and got a virology scientist position at Origene Technologies, Inc. It is a Contract Research Organization (CRO) and was an important stepping stone for her career. She wanted to work in a big pharmaceutical company and vigorously began networking. She came across her current position in the BioTherapeutics Development Department at Johnson & Johnson through a friend. Siddarth Chandrasekharan also worked as a postdoctoral fellow; however, he trained at UC Davis. As he was applying for multiple grants, he realized that he wanted to be in industry. He is currently the project lead for antibody-based lead drug candidates at OncoResponse.

*There doesn't seem to be a specific "right time" to transition to industry.
However, it is never too late if you are ready to move to industry.*

Should I wait for my project to wrap up? Am I going to burn bridges with my supervisor?

When Shewit got her position at Origene, she told her supervisor that she was not planning to renew her contract. He was caught off-guard but when she explained the reasons, he understood her decision as the project was not moving along as planned. She says, "if they really care about your career, they should not take it personally." Also, to smoothen the transition, she asked Origene to wait 3 months for her to finish her contract.

Another point that came up during the discussion was that it is important to provide at least two weeks' notice to employers, to facilitate a smooth transition. It speaks volumes about the candidate's commitment and personality. During the CCR-FYI Colloquium, Adam was in the process of transitioning to the FDA and he gave a month's notice. He also explained parts of his job to his co-workers, so that they could take over these responsibilities in his absence.

It is best to keep your supervisor in the loop when you are searching for a position. This way you can avoid the risk of burning any bridges. Also, if you are planning to make the transition to industry, it is better to start your job search early rather than wait for all your projects to end. Companies are usually open to negotiating the start date for the right candidate.

What does a typical day look like in smaller and larger biotechs? Also, how much flexibility would there be?

Katherine and Shewit are part of big biotechs, while Adam and Siddarth work in small start-ups. Katherine has been in industry for 9 years and according to her, "you don't get the choice of what you want to work on." The projects are typically assigned, and you are expected to come up to speed and switch gears extremely fast. Many times, the projects change or don't work, so it is important to be flexible and not lose sight of the final goal. On the other hand, it also keeps things interesting as there is always a new direction to pursue.

In terms of work schedule, as a bench scientist there is not much flexibility with work hours, as you are expected to perform experiments and report results. However, in her current role as a project manager, Katherine says there is more flexibility in her work hours, but she can end up working more depending on the needs of the project. Shewit is a bench scientist and her work environment is team-based. Additionally, her company has strict policies about work-life balance.

There is a big difference between small versus large biotechs. In a small company, there are not many employees, and everybody has to do a bit of everything, including discovery, manufacturing, analysis, and other non-scientific responsibilities. Thus, small biotechs may require long work hours. Siddarth works for a relatively small company, which basically has an all hands-on deck policy. He started full time as a bench scientist, but now he manages CRO collaborations and is involved in a lot of data analysis. He has successfully managed to work his way up to achieve work-life balance, though he agrees that "in a small company

work-life balance is harder.” However, there is a lot of visibility at small companies and it can lead to a fast growth trajectory. In Adam’s experience, you may have the flexibility to present an idea for a grant and if the company decides to pursue it, you may be writing a grant and doing the research. Of course, the idea has to fit with the bigger picture of the company and the flexibility is probably less compared to academia. Yet, smaller companies are often open to new ideas and collaborations.

For early career trainees, industrial postdoc is a viable option to get your foot into biotech companies. The choice of small versus large biotech mainly depends on your personal ambition and family requirements. It can be satisfying and challenging to work in smaller companies. It provides the satisfaction of being involved in each step. Also, the setting is closer to what we may be used to in academia in terms of new ideas and pursuing collaborations. If your ambition is to move to a larger biotech, working in smaller companies can quickly open the door to make that switch. However, if you are looking for work-life balance, a large biotech may be the way to go as small companies often have a fast-paced environment and an “all hands-on deck” approach.

What are the key areas to focus on to successfully land an industrial position?

According to Siddarth, he spent a lot of time tailoring his cover letter for each job according to the job description. He also suggested giving a personal touch to the cover letter to make it memorable for the person in charge of hiring. Katherine suggested spending time on your resume as well. Large pharmaceutical companies have an automated system that looks for key words in job applications. It is very important to use those key words to get through the screening process. Adam focused on the role of networking in the job search. Knowing someone who is already in the company can be advantageous.

“Network, network, network!”

Many companies have a referral system and applying through that can highlight your resume to the hiring manager.

How do you sell yourself during the interview?

Half the battle can be won even before the actual interview. When Siddarth got his current position, the hiring team told him that he asked the right questions. According to him, it takes a lot of preparation to do that successfully. It is essential to research the company by reading their publications and patents. Katherine suggested knowing your interviewers beforehand so that you can ask questions based on their areas of expertise. This shows that you are interested in working there. While having high impact factor publications adds value to your

resume, it is equally important to show that you are up-to-date with current research in the field.

Many companies may ask you to present your research or may bring it up during the interview process. According to Shewit, it is very helpful to talk about the big picture and get them interested in your project rather than experimental details. Siddarth suggested having two slides at the end that summarize what you can bring to the table.

“A job is not an award that a company is looking to give, it’s a problem they are trying to solve.”

Many smaller companies don’t have a human resources team and the interview is conducted by scientists who are working in the company. They generally won’t be asking many psychological questions but are trying to assess whether they can work with you on a daily basis. So, it is critical to be interested in their research, personable, and relaxed.

Final words of advice?

In the end I would like to finish by quoting Adam:

“You only need the system to work successfully once.”

Marketing Yourself for Career Success

By Dorothy L. Butler

During the Annual CCR-FYI Colloquium, Janice Morand, PhD, who oversees the graduate and postdoctoral career services at UC Davis, hosted a workshop focused on marketing yourself for the career you want by creating an enticing resume and learning how to give an effective elevator pitch. The workshop first addressed the sections to include in a resume with helpful tips on formatting and ended with how to begin networking using an elevator pitch.

Janice likened resumes to marketing brochures—you have about 6 seconds to catch someone's attention before they decide to keep reading or move on. While a Curriculum Vitae (CV) is a complete record of your experiences over time, a resume is much more concise, and highlights experiences relevant to a specific position.

It is recommended that your resume be 1-2 pages in length. A resume header contains your contact information with your name in larger font than all the rest to stand out. If your LinkedIn page is up-to-date, Janice recommended highlighting your profile by including your LinkedIn url in the header. Following the header, a profile statement of three to five sentences should summarize your experiences, education, qualifications, and goals. Consider this the attention grabber of the reader. Other sections to include in the rest of the resume are education, experiences, and skills that tailored to the job. Accomplishment statements should be used in the experience section to describe how you have used your skills. These begin with an action verb and give context and results for each experience.

SAR method for writing accomplishments: recall a Situation you encountered and note the Action you took to address the problem and think about the Results of your actions.

Tips for formatting included avoiding templates, putting the most important information toward the top left, using ½ inch margins to save space, and listing “selected” information (like honors, presentations, etc.) to highlight just the most important ones for the specific audience.

Resumes are only part of helping you begin the successful career you want. Networking is another part because your network can help connect you to available jobs. Since networking can sometimes seem overwhelming or intimidating, Janice described some helpful ways to craft an elevator pitch and use that as a method to start a conversation to begin networking.

Networking is all about building relationships that are for mutual benefit and an elevator pitch can be the beginning of a networking connection. It should be about 30 seconds for a phone call and can be 1-2 minutes for an in-person conversation. Ideas to begin crafting your own elevator pitch are to start by thinking about 3 things about yourself, 1 career goal, and 1 question. Introduce yourself with those 3 things, explain your professional goals or what skills and abilities you hope to use, and ask a relevant question so your audience is prompted to respond. The only way to improve and become more comfortable with networking and giving an elevator pitch is to practice. Once you have connected with someone, make sure to stay connected by asking for a business card or connecting on LinkedIn or asking for suggestions of others to connect with. An important tip is not to fear failure and accept that you will not be friends with everyone, but if you are sincerely interested in others and respectful of their time, you can be successful at networking and making meaningful connections that can propel you forward in your career.

Crafting a great resume and being able to give a good elevator pitch are important ways to market yourself for jobs. While Janice focused mostly on these two topics, another workshop at the Colloquium went more in depth on networking beyond giving an elevator pitch. To read more about that, see the article entitled “Networking—Be Your Memorable Self”.

Networking – Be Your Memorable Self

By Molly Congdon

Every year the Annual CCR-FYI Colloquium provides fellows the opportunity to network with their colleagues from all the NCI campuses, extramural speakers, workshop presenters, and invited panelists. These networking opportunities come in the forms of research presentations, networking events, career panels, and skill building workshops. This year, the 2019 Annual CCR-FYI Colloquium hosted an informative, introductory “Networking” workshop to help fellows grasp the basic components of networking, a skill and task vital to advancing a person’s career.



Dr. Elizabeth Jeanne Thatcher
(Credit: CCR-FYI Colloquium
Committee)

The workshop was given by Dr. Elizabeth Jeanne Thatcher, a field medical director of malignant hematology at Pfizer. Dr. Thatcher received her B.S. in Biomedical/Medical Engineering from Mercer University in 2004 and a Ph.D. in Molecular Biology from Vanderbilt University in 2010. Additionally, during her graduate career she acted as a STEM Outreach Teacher, teaching 7th grade students once a week. Upon earning her Ph.D., she completed two postdocs at the University of Massachusetts Medical School. During her postdoc career, she realized that she did not want to be a principal investigator. To determine what type of career she wanted, she turned to her network. Her connections helped her learn about various career paths, grow her network, and obtain her current position. During the workshop, Dr.

Thatcher focused on a few main concepts that are vital to successfully network: the elevator pitch, business cards, online profiles, etiquette, “informational interviews,” and adding value your network. Her advice on each of these topics is summarized below.

The first thing everyone has to do when meeting new people is introduce themselves. It is unavoidable and extremely important. As with the previous part of this series, Dr. Thatcher stressed the importance of the elevator pitch, a brief (30 seconds max) personal summary. Your elevator pitch should not be your personal history. It should get straight to the point and include important information, such as your name, your career position, your point for talking to the person, and a unique fact about yourself.

“It’s the personal touch that makes it memorable.”

Furthermore, it is important to have multiple elevator pitches, since every interaction that you have with others will not be in the same setting or for the same reasons.

Another tool for networking is business cards. Just as with your “elevator pitch,” it is important to have two types of business cards: a company card and a personal card. Your company card is temporary and will change any time you change positions or companies. This card should only include your contact information for your place of employment. Although your company may have a specific title for your position, it is important to use universal titles on your company card so that those outside of the company will understand your position. On the other hand, you can use your personal business card forever. This card can include your personal number, personal email, LinkedIn address, and goals for where you want your career to go. It is important to carry both cards at all times. When handing out cards, you want to give out your company card at work related events. You never want to start with your personal card unless you are at a networking event, conference, or random setting. Remember, connections can always be transferred from your company network to your personal network.



Workshop volunteers practicing their elevator pitches (credit: CCR-FYI Colloquium Committee)

In today's digitalized world, it is imperative to maintain an online professional profile, especially if you include the link on your personal business cards. LinkedIn is a great site to use since you can have a profile at no cost. When preparing your profile, you want to remember to keep it professional. This profile will be looked at by any future employers. As a result, you want to keep it free of personal beliefs. Instead, focus on your professional facts: educational background, employment history, publications, skills, service, etc. When selecting a professional photo for your profile, choose one where you are smiling. This photo may be the first-time people see you and you want to give the best first impression possible. When determining your headline remember to be concise, use common terminology to describe your position (i.e., NIH postdoctoral fellow is more understandable than IRTA fellow) or include some of your interests. It is also essential to personalize your dashboard. You can achieve this by using your background photo to grab attention by selecting an interesting, pretty photo that relates to your interests or career (e.g., an image of stained cancer cells).

Once you have your online professional profile, you can easily communicate with your network or make new connections with the simple click of a button; however, using proper etiquette is vital. It is acceptable to reach out to people outside of your current network, but with shared interests or associations (i.e., college alumni, people with similar positions), as well as to people in a position or a company that you are interested in. When reaching out to a new connection make sure to include a personal note (i.e., where you met them or a

reference to your conversation, the fact that you are interested in their position, etc.). More importantly, if you ask a question, the only question you should ask is “can we connect?” Remember, at this stage of the relationship, you do not know the person well, so asking for anything beyond simply connecting, is asking the person to instantly invest a lot of work into the new relationship. Also, never mention family or children unless they bring the topics up first. These topics are personal and can make people uncomfortable depending upon what is happening in their personal lives. When reaching out to an established connection for information, etiquette is just as important. Since you are asking for assistance, be flexible and ask for what is best for his/her schedule.

One-way people frequently reach out to their connections is for “informational interviews,” which are “a great way to start building a personal relationship from an online relationship.” They are short conversations where you meet with a connection in person (or by video or phone conference) to learn about a position, career, or company. When requesting an informational interview, never refer to it as just an interview in a message. The word “interview” alone implies a formal meeting that requires more preparation and work on the part of your connection. Since an informational interview is a casual meeting, less preparation is implied in your request. Furthermore, ask for a few minutes (15 max) of his/her time and be flexible with scheduling. Time is precious to all of us.

“When you make it easy, it usually works in your favor.”

Finally, you must treat an informational interview as you would a formal interview: plan for extra time, have a list of questions prepared, take minimal notes, and actively listen to what the person has to say, and follow up with a thank you afterwards.

The final topic that Dr. Thatcher discussed was “adding value” to your network. By adding value, Dr. Thatcher was referring to the amount of effort she put into each relationship. An important relationship, such as one that you are hoping to get information from, is more valuable to you and as a result, requires more work or maintenance. Due to the ranging values of all of your networking relationships, Dr. Thatcher stressed that “it is important to keep track of your network.” This goes beyond knowing who recently changed positions, companies, or careers, and includes knowing how much effort you have put into a relationship. Personally, Dr. Thatcher achieves this by maintaining an electronic spreadsheet with all of her contacts as well as notes on when and why she contacted them. She also stated that there are many ways to add value to a relationship. How you choose to add value to a relationship will depend upon the contact’s position and interests, as well as what you want to get out of the relationship. She provided the main way that she adds value to her relationships, through what she refers to as a “publication alert,” as an example. Her publication alerts include a citation or PubMed link for a recently published article that she found interesting and a summary of the paper’s rationale, conclusions, and key findings. She sends these publication alerts to members of her network that she believes may find the articles interesting. These alerts not only provide a means of sharing interesting scientific

findings, but also provide a way for her to keep in touch with her valuable contacts and remind them of her interests. During the workshop, Dr. Thatcher stressed that how you add value to your relationships is personal and highly dependent upon your career goals and interests. Unfortunately, there is no one size fits all approach to expanding and maintaining your network.

This article is the third installment of a series concerning Networking that is featured in the CCR-FYI Newsletter. The final part of this series will expand upon various methods that can be utilized to effectively maintain, “add value” to, and grow your network once you have established new contacts.

National Postdoctoral Association



What the NPA Does:

- Promote positive change in the postdoctoral experience.
- Develop and provide resources that postdoctoral scholars and administrators need for success.
- Provide opportunities for the postdoctoral community to connect.

NPA Highlights:

- Recommendations for postdoctoral policies and practices
- International postdoc survival guide
- Resources for developing mentoring plans for postdocs
- Responsible conduct of research toolkit
- The Elsevier Foundation New Scholars Grant
- PDA and PDO toolkits

NPA Membership Benefits:

- Leadership and professional development opportunities through volunteer service
- Opportunities to make your voice heard on national postdoctoral issues
- Subscriptions to the NPA e-alerts and The POSTDOCKET (quarterly newsletter)
- Reduced meeting registration fees, as well as other discounts
- Access to members-only Web content

Providing a National Voice and Seeking Positive Change

To join the NPA, please visit: www.nationalpostdoc.org

The National Cancer Institute is a sustaining member of the NPA and all Fellows can join as members at no cost.



The CCR Fellows & Young Investigators
(CCR-FYI) Association

Invites you to celebrate the 10th annual



**National
Postdoc
Appreciation
Week**

September 16 - 20, 2019

Mark Your Calendars for NPAW!

A week of activities for fellows to recognize the significant contributions that postdoctoral scholars make to U.S. research and discovery.

Events will be held on the Bethesda and Frederick Campuses

Past events include

Dark Roast and Donuts*

Free coffee and donuts!

Brown Bag Lunch Seminar

Networking on Tap

Get off campus to celebrate the end of the week and relax with other fellows!

Please contact Molly Congdon (CCR-FYI Social Chair) at molly.congdon@nih.gov with questions or comments

*Supported by the CCT Office of Training and Education



Are you interested in a career in science journalism or mass media communication? Join the CCR-FYI Newsletter Team to gain valuable experiences and skills!

Open positions:

- **Writer** – propose article ideas and spearhead article writing
- **Editor** – proofread and copyedit articles
- **Advertisement Designer** – recruit and design adverts for the CCR Newsletter

Skills:

- Professional writing
- Presenting academic information in a popular manner
- Non-science investigatory writing
- Communicating non-science related topics to the public

Benefits:

- Supportive team environment
- Flexible writing topics
- Gain experience in non-scientific writing
- Share your personal experiences to benefit other fellows
- Network with fellows outside of your group
- Positively influence the training experience with valuable information
- Plump up your resume

Providing a Voice for CCR Fellows

To join, please contact: claire.mccarthy@nih.gov

The NIH Fellows Editorial Board is...

...the best tool before submission of your manuscript!

Have a manuscript that needs **polish**?
Want to enhance its **impact**?

The NIH Fellows Editorial Board (FEB) will
edit your manuscript for FREE!

A confidential service provided **by and for** NIH and FDA Fellows!



Visit our website at

[https://www.cancer.gov/grants-training/training/
resources-trainees/get-involved/editorial-board](https://www.cancer.gov/grants-training/training/resources-trainees/get-involved/editorial-board)

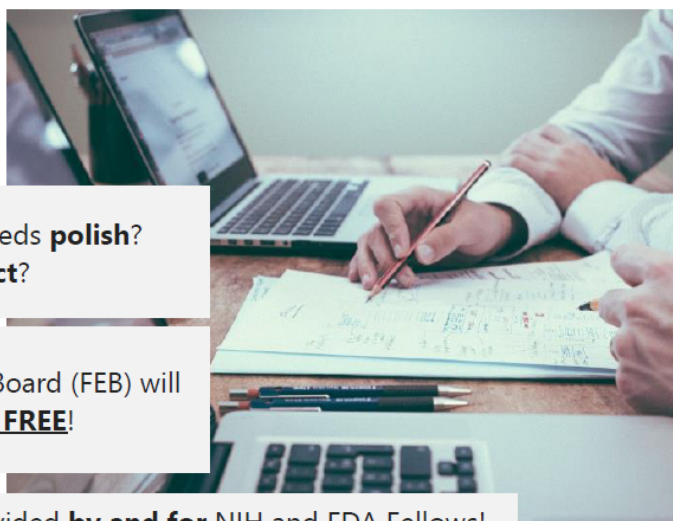
or e-mail us at

ncieditors@mail.nih.gov

FEB edits various scientific documents such as manuscripts, book chapters, and grant proposals for grammar, form, and clarity.

We review essential elements pertinent to the document, such as figures and figure legends, but **do not consider scientific merit**. Authors generally receive written feedback in 10 business days.

This service is open to all NIH and FDA fellows (postbac, predoctoral, postdoctoral, research, and clinical).



Join the 2020 FYI Colloquium Planning Committee!



Are you interested in networking with extramural scientists, exploring alternative careers in science, or giving back to the community? **The 2020 planning committee forms in July 2019.** To join, begin attending the CCR-FYI monthly meetings in Bethesda and Frederick on the last Thursday of the month, at 11am.

Subcommittees and descriptions:

- **Schedule** – Plans and maintains the meeting schedule
- **Theme** - Selects the theme for the colloquium
- **Survey** – Manages surveys to vote for speakers, themes, and workshop/panel topics
- **Keynote speakers** – Invites extramural and intramural speakers, the survivorship speaker, and the training directors for opening and closing remarks
- **Panels and Workshops** – Invites panelists and presenters
- **Abstract Book** – Prepares the Colloquium abstract book
- **Abstract Judging** – Manages abstract judging and notifies selected abstracts for oral and poster presentations
- **Logistics and Publicity** – Raises community awareness about deadlines for abstract submission and registration. Improves awareness throughout the CCR community to strengthen attendance and participation.
- **Awards** – Manages nominations and judging for Outstanding Postdoctoral Fellow, Outstanding Postgraduate Fellow, and travel awards

**Providing Valuable Training Experiences for
CCR Fellows**

For more information, please contact:

Jessica.Eisenstatt@nih.gov and Amy.Funk@nih.gov

Join the Fellows and Young Investigators Steering Committee!



Are you interested in networking with other fellows, exploring alternative careers in science, gaining marketable skills, or giving back to the community? Join the CCR-FYI SC! Meetings are held monthly in Bethesda and Frederick on the last Thursday of the month, at 11am.

Subcommittees and descriptions:

- **Community Life Subcommittee** – Welcomes new fellows during orientation
- **Social Chairs** – Plan and host social and networking events throughout the year
- **Newsletter** – Writes, publishes and edits the quarterly CCR-FYI Newsletter
- **Outreach NCI-SC**– Organizes outreach events in the community
- **Scientific Subcommittee** – Organizes the Bethesda PASS and Frederick Seminar Series
- **NPA Liaison** – Represents the CCR-FYI at the NPA annual national meeting
- **Felcom Representative** – Represents the CCR-FYI at the NIH Felcom meetings
- **Graduate Student Representative** – Represents graduate students in the NIH community
- **Postback Representative** – Represents postbacks in the NIH community
- **E-Communications** – Updates and maintains the CCR-FYI Wiki and LinkedIn pages
- **Bylaws Subcommittee** – Updates and maintains the CCR-FYI SC bylaws
- **Colloquium Planning Subcommittee** – Organizes and hosts the CCR-FYI Annual Fellows Colloquium

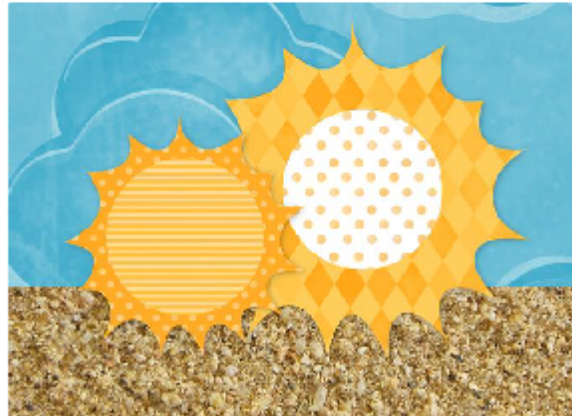


Providing Valuable Training Experiences for CCR Fellows

For more information, please contact:

Molly.Congdon@nih.gov and Jessica.Eisenstatt@nih.gov

CCR-FYI Summer Outing at Black Hill Regional Park



Saturday July 13th, 2019 at 10AM

20920 Lake Ridge Drive Boyds, MD 20841

Come on out for some fun in the sun with the CCR-FYI and other fellows as we enjoy summer! Relax on the water by boating around Little Seneca Lake, enjoy a hike, pack a picnic lunch, or play some outdoor games. Everyone is welcome including dogs! We will meet on the grass next to the boathouse for a group photo before venturing off to explore.

Boat rentals are \$14/hr for a kayak (single or tandem), canoe (up to 3 people), rowboat (up to 5 people) or paddleboard and \$12/half hr for pedal boats. Rentals include personal flotation devices.



For more information contact
molly.congdon@nih.gov
CCR-FYI Frederick Social Chair



NCI Center for Cancer Research
Fellows & Young Investigators



**MARK YOUR
CALENDARS FOR THE
20TH ANNUAL
CCR-FYI
COLLOQUIUM**

**Thursday and Friday,
March 12th and March 13th, 2020
NCI Shady Grove Campus, Rockville MD**

**Oral and Poster Presentations • Career Networking and
Development Workshops • Keynote Speakers • Outstanding
Post Doc. Presentation • Survivor Speaker •**

TRAVEL AWARDS!

Supported by CCT Office of Training and Education and CCR Office of the Director