Letter from the Chair

Dear Pathology Colleagues,

I am delighted to introduce this new issue of the Pathology Newsletter and take this opportunity to highlight our recent change in the department leadership. Dr. Eva Hernando stepped down from her position as our department’s Vice Chair for Research on March 1, after almost 6 years of remarkable accomplishments that took our department to an exceptional level. During her tenure, research funding almost tripled, placing NYU Pathology at the Top 10 of all US Pathology Departments. Eva was responsible for the recruitment of a significant number of stellar investigators, adding to our existing portfolio in the field of immunology and creating new areas of focus, like cancer biology and metabolism. Moreover, she was the one to spearhead research space decisions for our department consolidating space at Medical Science Building, opening up two new floors at the Smilow Research Building, and relocating our research laboratories at the VA. Eva redefined the role of the Vice Chair by taking bold initiatives, operating as a liaison between our Department and the Medical Center, and always being there for our faculty, trainees, and staff members. I would like to thank Eva once again for her extraordinary work during this time. She will be truly missed, but she will still be a key member of the Pathology faculty, running one of the most successful laboratories at NYU Langone Health, continuing to teach and advise us all.

Our new Vice Chair for Research will be Dr. Stefan Feske, who is currently a professor in our department. Stefan joined NYU in 2007 as an assistant professor. During this period, he established himself as a leader in the fields of Ion Channel Biology and Immunology, with a number of seminal publications and several awards and honors. Stefan received his MD degree from the University of Freiburg Medical School in Germany, where he also completed his residency in Internal Medicine, and in 1998 moved to Harvard Medical School for his postdoctoral fellowship and a short stint as faculty. Stefan currently holds five NIH awards, and he is the leader of the “Ion Channels and Immunity” program at NYU Langone Health. I know Stefan from the time that we both started as junior faculty, I admire his science, trust his judgment, and I am absolutely sure that he will successfully build on Eva’s important work to expand the research aspirations of our department.

Please join me in expressing our gratitude to Eva and in welcoming Stefan to his new role!

Iannis
Selected Publications

In Chronological Order


Johnson, Derek R; Kaufmann, Timothy J; Patel, Sohil H; Chi, Andrew S; Snuderl, Matija; Jain, Rajan. "There is an exception to every rule-T2-FLAIR mismatch sign in gliomas" *Neuroradiology* Feb 2019

Ganly, Ian; *Yang, Liying*; Giese, Rachel A; *Hao, Yuhan*; Nossa, Carlos W; Morris, Luc G T; Rosenthal, Matthew; Migliacci, Jocelyn; *Kelly, Dervla*; Tseng, Wenzhi; Hu, Jiyuan; Li, Huilin; Brown, Stuart; *Pei, Zhiheng*. "Periodontal pathogens are a risk factor of oral cavity squamous cell carcinoma, independent of tobacco and alcohol and human papillomavirus" *International journal of cancer* Jan 2019

Liu, Lily; *Li, Liuzhe*; Nanfack, Aubin; Mayr, Luzia M; Soni, Sonal; Kohutnicki, Adam; Agyings, Rachel; Wang, Xiaohong; *Tuen, Michael*; Shao, Yongzhao; Totrov, Maxim; Zolla-Pazner, Susan; Kong, Xian-Peng; *Duerre, Ralf; Gorny, Miroslaw K*. "Anti-V2 antibody deficiency in individuals infected with HIV-1 in Cameroon" *Virology* Jan 2019

Chattopadhayay, Pratip K; Winters, Aidan F; Lomas Iii, Woodrow E; Laino, Andressa S; Woods, David M. "High-Parameter Single-Cell Analysis" *Annual review of analytical chemistry* Jan 2019

Marzio, Antonio; Puccini, Joseph; Kwon, Youngho; Maverakis, Natalia K; *Arbini, Arnaldo*; Sung, Patrick; Bar-Sagi, Dafna; Pagano, Michele. "The F-Box Domain-Dependent Activity of EM1 Regulates PARPi Sensitivity in Triple-Negative Breast Cancers" *Molecular cell* Jan 2019


Serpas, Lee; Chan, Rebecca W Y; Jiang, Peiyong; Ni, Meng; Sun, Kun; *Rashidfarrokh, Ali; Soni, Chetna; Sisirak, Vanja*; Lee, Wing-Shan; Cheng, Suk Hang; Peng, Wenlei; Chan, K C Allen; Chiu, Rossa W K; *Reizis, Boris*; Lo, Y M Dennis. "Dnase1l3 deletion causes aberrations in length and end-motif frequencies in plasma DNA" *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* Jan 2019


Natarajan, Aswin; Krogsgaard, Michelle. "The myriad targets of a T cell" *Nature biotechnology* Dec 2018


Marie, Isabelle J; Chang, Hao-Ming; Levy, David E. "HDAC stimulates gene expression through BRD4 availability in response to IFN and in interferonopathies" *Journal of experimental medicine* Dec 2018

Raviram, Ramya; Rocha, Pedro P; Luo, Vincent M; Swanzey, Emily; Miraldi, Emily R; Chuong, Edward B; Feschotte, CĂ©dric; Bonnaeau, Richard; *Skok, Jane A*. "Analysis of 3D genomic interactions identifies candidate host genes that transposable elements potentially regulate" *Genome biology* Dec 2018

Yatabe, Yasushi; Dacic, Sanja; Borczuk, Alain C; Warth, Arne; Russell, Prudence A; Lantuejoul, Sylvie; Beasley, Mary Beth; Thunnissen, Erik; Pelosi, Giuseppe; Rekhtman, Natasha; Budendorf, Lukas; Mino-Kenudson, Mari; Yoshida, Akihiko; Geisinger, Kim R; Noguchi, Masayuki; Chirieac, Lucian R; Bolting, Johan; Chung, Jin-Haeng; Chou, Teh-Ying; Chen, Gang; Poleri, Claudia; Lopez-Rios, Fernando; Papotti, Mauro; Sholl, Lynette M; Roden, Anja C; Travis, William D; Hirsch, Fred R; Kerr, Keith M; Tsao, Ming-Sound; Nicholson, Andrew G; Wistuba, Ignacio; *Moreira, Andre L*. "Best Practices Recommendations for Diagnostic Immunohistochemistry in Lung Cancer" *Journal of thoracic oncology* Dec 2018

Xiong, Xiaozhong; Schober, Markus; Tassone, Evelyne; Khodadadi-Jamayan, Alireza; Sastre-Perona, Ana; Zhou, Hu; Tsirigos, Aristotelis; Shen, Steven; Chang, Miaox; Melamed, Jonathan; Ossowski, Lilianna; Wilson, Elaine L. "KLF4, A Gene Regulating Prostate Stem Cell Homeostasis, Is a Barrier to Malignant Progression and Predictor of Good Prognosis in Prostate Cancer" *Cell reports* Dec 2018
Jour, George. "DecisionDx-Melanoma and Sentinel Lymph Node Biopsy: To Do or Not to Do?" Dermatologic Surgery Dec 2018

Sy, Alexander M; Joutovsky, Alla; Friedel, David. "Unusual Pick Up by Capsule Endoscopy" Gastroenterology Dec 2018

Kelly, Dervla; Yang, Liying; Pei, Zhiheng. "Gut Microbiota, Fusobacteria, and Colorectal Cancer" Diseases Dec 2018

Li, Liuzhe; Liu, Yan; Gorny, Miroslaw K. "Association of Diverse Genotypes and Phenotypes of Immune Cells and Immunoglobulins With the Course of HIV-1 Infection" Frontiers in Immunology Nov 2018

Spino, Marissa; Kurz, Sylvia C; Chiriboga, Luis; Serrano, Jonathan; Zeck, Briana; Sen, Namita; Patel, Seema; Shen, Guomiao; Vasudevaraja, Varshini; Tsirigos, Aristotelis; Suryadevara, Carter M; Frenster, Joshua D; Tateishi, Kensuke; Wakimoto, Hiroaki; Jain, Rajan; Riina, Howard A; Nicolaides, Theodore; Sulman, Erik P; Cahill, Daniel P; Golfinos, John G; Isse, Kumiko; Saunders, Laura R; Zagzag, David; Placantonakis, Dimitris G; Snuderl, Matija; Chi, Andrew S. "Cell surface Notch ligand DLL3 is a therapeutic target in isocitrate dehydrogenase mutant glioma" Clinical Cancer Research Nov 2018

Chattopadhyay, Pratip K; Roederer, Mario; Bolton, Diane L. "A deadly dance: the choreography of host-pathogen interactions, as revealed by single-cell technologies" Nature Communications Nov 2018

Lo, U-Ging; Pong, Rey-Chen; Yang, Diane; Gandee, Leah; Hernandez, Elizabeth; Dang, Andrew; Lin, Chun-Jung; Santoyo, John; Ma, Shihong; Sonavane, Rajni; Huang, Jun; Tseng, Shu-Fen; Moro, Loredana; Arbini, Arnaldo A; Kapur, Payal; Raj, Ganesh V; He, Dalin; Lai, Chih-Ho; Lin, Ho; Hsieh, Jer-Tsong. "IFN-γ-induced IFIT5 promotes epithelial-to-mesenchymal transition in prostate cancer via microRNA processing" Cancer Research Nov 2018

Cho, M; Acosta-Gonzalez, G; Brandler, T C; Basu, A; Wei, X-J; Simms, A. "Papillary thyroid carcinoma metastatic to the pancreas: Case report" Diagnostic Cytopathology Nov 2018
An IFN-stimulated gene expression signature is a hallmark of many autoimmune diseases, where these gene products likely contribute to pathogenesis. A subset of autoimmune diseases, collectively known as interferonopathies, are Mendelian diseases caused by single gene defects in regulators of the IFN pathway. We found that combined inhibition of HDAC1/2 and Brd4 resolved the aberrant gene expression detected in cells derived from patients with two inherited interferonopathies, ISG15 and USP18 deficiencies. We predict that this approach of pharmacologic targeting of IFN-stimulated transcriptional mechanisms could be a generally applicable novel therapeutic modality for the treatment of IFN-associated autoimmune diseases.

**Best Practices Recommendations for Diagnostic Immunohistochemistry in Lung Cancer**


*Journal of Thoracic Oncology*, Dec 2018  
[View PubMed](https://doi.org/10.1016/j.jtho.2018.07.016)

**Dr. Andre Moreira**, professor of the Pathology department and Director of the NYU Center for Biospecimen Research and Development, was part of a study on best practice recommendations for diagnostic immunohistochemistry in lung cancer carried on by the International Association for the Study of Lung Cancer Pathology Committee. The 2015 WHO Classification of Lung Cancer first introduced the importance of immunohistochemical (IHC) stains as an ancillary test to separate NSCLC subtypes, especially in small biopsy which constitute most specimens for the diagnosis of lung cancer. Interpretation of IHC can be challenging, as pathologists must be aware of pitfalls involving selection of antibody panels, clones, and interpretation of staining patterns. The International Association for the Study of Lung Cancer (IASLC) Pathology committee undertook a comprehensive project to provide a consensus guideline for IHC utilization for lung cancer classification based on practical questions submitted by committee members. These questions were inclusive of all possible scenarios where IHC could be used in lung cancer pathology, This study provides answers and explanations based on literature review and consensus of experts in thoracic pathology. Hopefully this article should assist the Lung cancer community in the appropriate use of IHC in diagnostic pathology.

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**Featured Publications**

**HDAC stimulates gene expression through BRD4 availability in response to IFN and in interferonopathies**

Marie, Isabelle J; Chang, Hao-Ming; Levy, David E.  
*Journal of Experimental Medicine* Dec 2018  
[View PubMed](https://doi.org/10.1084/jem.20181220)

The type I interferons (IFNs) are key cytokines regulating innate immunity to viral and microbial infection, but they also become dysregulated in a number of autoimmune syndromes, including lupus. They function by inducing a characteristic pattern of gene expression in target cells, mediated by the JAK-STAT signal transduction pathway. IFNs bind a cell surface receptor complex, leading to activation of an associated protein tyrosine kinase that phosphorylates latent STAT1 and STAT2 transcription factors, causing them to associate and accumulate in the nucleus where they induce gene expression. We found that IFN-dependent induction of target gene expression is uniquely dependent on the activities of histone deacetylase (HDAC) enzymes, in contrast to the more common role of these enzymes as repressors of gene expression, such that induction of IFN-stimulated genes is abrogated by pharmacological HDAC inhibition or by gene suppression. Exploring the molecular mechanism of the positive action of deacetylases on gene induction, we found that HDAC1 and 2 enzymes, as components of the Sin3A epigenetic regulator, were required for transcriptional elongation of IFN-stimulated genes, but not for transcriptional initiation. Transcriptional arrest due to HDAC inhibition coincided with failure to recruit the epigenetic reader Brd4 and the transcriptional elongation factor P-TEFb, due to sequestration of Brd4 on hyper-acetylated chromatin. Brd4 availability is regulated by an equilibrium cycle between opposed acetyltransferase and deacetylase activities that maintains a steady-state pool of free Brd4 that can be recruited to inducible promoters to facilitate the transition between initiation and elongation. This requirement for HDAC activity makes IFN-stimulated gene expression exquisitely sensitive to pharmacologic intervention through the action of HDAC and BRD4 inhibitors.
Viruses reproduce by using the genetic machinery of the cells they invade. As part of that process over time, they have left behind thousands of DNA sequences, called transposons, throughout the genome. Studies established decades ago the idea that a few of these viral insertions have come to play a role in the action of genes. Determining which transposons regulate which genes, however, has proven to be a challenge, as transposons may influence a nearby gene or one that is located far away in the DNA molecular chain. This current study led by Dr. Jane Skok, describes new techniques that help to solve the challenge by identifying which of our genes are influenced by transposons. “One of the interesting findings from our study is that a single transposon may control more than one gene and that one gene can be regulated by more than one transposon, increasing the complexity of the potential impact of transposons on health and disease,” said senior study author Dr. Jane Skok.

Read full interview to Dr. Jane Skok and first author of the study Dr. Raviram Ramya, PhD student in Skok lab.

Current position
R. Postdoctoral fellow in the Ren lab at UCSD/Ludwig Institute for Cancer Research
J. Sandra and Edward Meyer Professor Department of Pathology, NYU

Director of the Cancer Genome Dynamics Program Perlmutter Cancer Center.

Skok lab

Can you give us your scientific biography and the questions your lab is trying to answer?
J. My laboratory applies a combination of sophisticated imaging techniques, molecular biology (including chromosome conformation capture) and genetics to investigate the contribution of nuclear organization and long-range interactions in coordinating transcriptional programs during development, and redirecting these in cancer cells.

What is the novelty of your study?
J&R. Transposons comprise approximately 50% of the mammalian genome, yet due to their repetitive nature they have been difficult to study using genome wide sequencing technologies. In this study, we use a single primer or probe to capture 3D genomic interactions from several transposons integration sites in the mouse genome. We can uniquely map these interactions using Capture Hi-C to better understand the role of transposons in shaping the 3D organization of chromatin in the nucleus as well as in gene regulation.

Can you give us the key results of the paper in a paragraph?
J&R. We performed 4C-Seq using primers designed for IAPEz, EtnERV, MuLV and RTR4 and were able to capture interactions from multiple integration sites of these transposons in the mouse genome. In addition to capture 3D interactions of annotated transposons, the technique also identified new integration sites that were specific to mice strains. In order to identify interactions with regulatory elements, we performed Capture Hi-C, with a single probe designed for MER41 elements in HeLa cells. We were able to confirm known regulatory interactions between MER41 elements are the promoters of genes and also identify new contacts with other promoters across the genome. Therefore, using this approach can help us identify candidate target genes that transposons can regulate.

Where will this work take the Skok lab?
J: We aim to use 4Tran to determine how aberrantly activated transposons in cancer can contribute to oncogenic transcriptional programs

Finally, let’s move outside the lab – what do you like to do in your spare time in NYC?
R. My favorite thing to do in NYC is trying different cuisines from all over the world and drinking craft beer. J. what spare time? I am with Ramya on the fine dining and I like to run around Central Park before starting my day.
Academic Achievements

Grants

Sergei Koralov, PhD
NIH R21
11/16/18
“Delineating The Differences Between Short-Lived And Long-Lived Plasma Cells”

Awards

Shruti Naik, PhD
New York Academy of Sciences
“Innovators in Science” Early-Career Award
12/12/18
Dissecting the role of inflammation in tissue regeneration
Spotlights

Francesco and the Alex's Lemonade Stand Foundation

How Art and Science can collaborate to raise awareness and help fundraising!

Francesco Boccalatte, postdoc in Aifantis lab, told the story of the Alex’s Lemonade Stand Foundation, to a good friend who is a talented visual artist, director and developer of a web series about stories of hope. The result of their collaboration was astonishing. Click here to know more.

For those who are not familiar with it, Alex’s Lemonade Stand Foundation (ALSF) is the greatest private fundraiser for pediatric cancer research in the US. It was established by an 8 years old girl (Alex Scott) while she was receiving treatment from neuroblastoma. In ten years the organization has raised more than 150 million dollars and funded almost 1000 research projects (including Anastasia Tikhonova and Francesco Boccalatte in Aifantis lab).

When Francesco told his friend about the Alex’s Lemonade Stand Foundation, she got so interested and inspired by it that she flew to Pennsylvania to meet Alex’s parents. The below video is the result of the interview and it is worthy 5 minutes of your time to watch it as a truly inspiring story.

Alex’s Lemonade: How to change the world at the age of 8 - YouTube

Elevator Pitch Winner!

Anastasia-Maria Zavitsanou, PhD student in Koralov Lab

Anastasia-Maria Zavitsanou, PhD student in the Koralov Lab, was the winner of the Elevator Pitch competition! She was awarded Best Presentation by faculty and by the audience (program colleagues who attended the presentation). She presented her thesis titled “Investigating how major lung cancer genetic subtypes impact tumor immune-surveillance”.

The Immunology and Inflammation Program (I&I) hosted the annual WIP Challenge on Wednesday, January 30th, 2019 in Smilow 1301. 3rd year and higher graduate students of the I&I program were challenged by a 3-minute presentation of their own PhD thesis. They had to imagine telling the story of their PhD project to a willing donor who might want to sponsor their research. In order to get the donor’s attention, they had to specify what the story was about, why it was important and why they were the right person and project in which to invest. The challenges were timed, 3 minutes for years of your PhD life!, and explained in lay terms with no detailed scientific terms and acronyms used.

Congratulations, Anastasia-Maria!!!
Postdoc member wanted for Pathology Seminar Series organizational committee

Pathology department hosts world class scientists who present their findings at our pathology seminar series. Speakers are nominated by all of the department faculty and selected by an Organization Committee. The Pathology Seminar Series Organizational Committee would like to invite a postdoctoral representative to be part of it and have a designated trainee invited speaker. If you are interested in serving on the committee for the 2019-2020 term please contact Drs. Naik, Possemato and Koralov by March 15th with a brief explanation (200 words max) of why you believe you are suited for this opportunity and how you think being on this committee with help your career. This is a fantastic opportunity to represent postdocs opinion on selection of invited speakers and an extraordinary occasion to improve your organizational and leadership skills in preparation for a career in academia, industry or any other sector.
How a sabbatical can boost your career:
Dr. Oleg Krichevsky is sharing his sabbatical experience in Reizis lab at NYU Langone Health

Dr. Oleg Krichevsky is a professor at the Department of Physics, Ben-Gurion University, Beer Sheva, Israel, who decided to spend a sabbatical year in the Dr. Reizis lab in the Department of Pathology at NYU. Dr. Oleg Krichevsky is a biophysicist specialized in DNA and Chromatin structure. His lab is interested in studying interactions and physical properties of biological molecules with the help of advanced optical (Single-Molecule Imaging, Fluorescence-Correlation Spectroscopy) and molecular biology techniques. Why is a biophysicist interested in immunology and why doing a sabbatical? Discover this and more in our interview with Dr. Krichevsky!

Dr. Oleg Krichevsky decided to pursue a professional research career in physics already while studying in his high school that was part of the system of specialized physics-math schools in the Soviet Union. He did his PhD in Physics at the Weizmann Institute of Science in Israel and then moved to New York for his postdoctoral training in the lab of Dr. Albert J. Libchaber at The Rockefeller University. After a short stay in France where he worked in the group of Dr. Didier Chatenay, CNRS, Dr. Krichevsky moved back to Israel to join Ben-Gurion University of the Negev where he presently teaches and leads his own research group.

Dr. Krichevsky fondly recalls his stay in Prof. Libchaber’s lab: “The lab atmosphere was incredibly exciting and stimulating. We were all inspired to pursue a career in science and we all did! And we kept in touch with each other ever since.” And eventually it was Dr. Grégorie Altan-Bonnett, Oleg’s friend and colleague from the Libchaber lab years, who introduced him to Immunology research. For his first sabbatical, some 7 years ago, Oleg joined the Altan-Bonnett lab at Memorial Sloan-Kettering Cancer Center (now at NCI/NIH, Altan-Bonnett lab). Their collaboration continued with part of the project being moved to Dr. Krichevsky’s lab in Israel. In an effort that combined immunology and physics modeling/data analysis methods, the two labs studied some spatial aspects of T cell communication through cytokines. They demonstrated that a simple physical model adequately describes interleukin-2 cytokine fields around T cells both in vitro and in vivo.

Encouraged by this success, Oleg sought to immerse himself yet deeper into the immune research and started to think about his second sabbatical year. While perusing through papers and web sites of different immunology labs in the NY area (as a fun of NYC as well) he got interested in the work done by the Reizis group. Actually, only after deciding to contact the lab, Oleg realized that he had already met Dr. Boris Reizis during their PhD studies in Israel, Boris in Biology and Oleg in Physics. Dr. Reizis welcomed the emerging collaboration: he believed his lab could benefit from Oleg’s expertise in quantitative data and image analysis and physical modeling.

In the Reizis lab, Oleg is applying his unique expertise in biophysics and computational approaches to intravitale imaging of stem/progenitor cells in the bone marrow. He is also participating in the adoption and development of new technologies such as high-dimensional immunochemistry and (jointly with the newly established Institute for Bioengineering in Medicine at NYU Health) tri-photon intravitale microscopy.

But why doing a sabbatical, what are the benefits? “When you want to learn another field, especially as complex as Immunology is, you need to be surrounded by the new environment 100%” said Dr. Krichevsky. “It’s easy to get into a routine and difficult to get out, while immersed in your normal duties as scientist, group leader and teacher. Sabbatical is not easy though” continued Dr. Krichevsky. “You are released from your teaching duties and most (not all) of your administrative responsibilities but you still have to follow your students and fellows and carry on projects in your lab. However, it really is a rewarding and fascinating experience. It is very important as a scientist to have basic knowledge of other fields and explore new collaborations beyond your research to complement your projects. I would give this advice to all young scientists, especially now when Physics, Mathematics and Data Analysis are so important for biological studies.” Dr. Krichevsky suggested a sabbatical experience at any moment of a scientific career after getting a tenure position. “Starting a lab as a junior scientist is always difficult,” Dr. Krichevsky mentioned when asked about other advice for young trainees. “In addition to all new responsibilities, you need to start populating your lab and you need good students to work with. Teaching helped me recruit great students since the beginning of my career. It is a big effort and time taken away from lab work, but it is a great way to get to know people and let people know you. That is really important at the beginning of your career.”

Dr. Krichevsky will be at NYU until the summer, during which time you are welcome to introduce yourself and your research for a chat during coffee or perhaps a more formal conversation!

Welcome Dr. Krichevsky!
Who is New

Syed Muhammad Shoiab Bukhari, MS, PhD  
Postdoctoral Fellow  
Naik Lab

Priya Pancholi, MS  
Associate Research Scientist  
Feske Lab

Ines Delclaux  
Non-traditional Volunteer  
Hernando Lab

Ainhoa Ruiz Iglesias  
Non-traditional Volunteer  
Hernando Lab

Serap Erdogmus, PhD  
Postdoctoral Fellow  
Feske Lab

Xin Wang, MS  
Non-traditional Volunteer  
Lee Lab

Khushpreet Kaur, MS  
Pre-doctoral Training Fellow  
Laal Lab

Yue Xing, PhD  
Postdoctoral Fellow  
Naik Lab

Audrey Lasry, MS, PhD  
Postdoctoral Fellow  
Aifantis Lab

Ming Yu, MS  
Non-traditional Volunteer  
Park Lab

Marina Malumbres Perez  
Student Intern  
Aifantis Lab

Fengxia Zhang, PhD  
Associate Research Scientist  
Lee Lab
Alumni News

Vanja Sisirak, PhD
Chargé de Recherche (Assistant Professor) from the CNRS at the University of Bordeaux

https://www.immuconcept.org/team_member/vanja-sisirak/

Can you tell us which is your current position/ when did you start?

V: I am a currently a research group leader in France at the University of Bordeaux in the research unit called Immunoconcept (UMR CNRS 5164). I obtained a permanent position from the French national agency of scientific research called the CNRS (Centre National de Recherche Scientifique). I started my new position in September 2017.

K: I just started a position as group leader at the University of Bordeaux in the Actions for onCogenesis understanding and Target Identification in ONcology (ACTION) INSERM 1218 research unit.

Can you tell us which was your position in NYU/your supervisor/and when position started –ended?

V: I started a position at NYU as a research associate scientist in May 2015 in the department of Pathology. I was supervised by Dr. Boris Reizis and worked on the immune mechanisms that lead to the development of systemic lupus erythematosus. I left the lab in July 2017 to start my independent career.

K: I actually worked in the Department of Pathology at two different periods of my career: first finishing my PhD with Dr. Iannis Aifantis from November 2006 - February 2010 and then as a research assistant professor with Dr. Boris Reizis from March 2015 - July 2017.

How did you get where you are today and how did the experience in the pathology department and Reizis lab help you get there?

V: For my transition from NYU, USA to Bordeaux, France I was awarded a grant from the IdEx Junior Chair program of the University of Bordeaux that supported the initiation of my independent career. This allowed me to constitute a small research group and start our projects. After starting at the University of Bordeaux, I applied to a French national agency of scientific research CNRS and obtained a permanent position as a “Chargé de Recherche”, which is a position equivalent of an assistant professor.

K: Upon arriving in France, I applied to and received a number of grants, including support from the French National Cancer Institute, European Hematology Association, and ATIP-Avenir program, which have enabled me to start my own group. In particular, the ATIP-Avenir award specifically supports the early independent research career stage in France, similar to the K99/R00 funding mechanism in the US, and with it comes formal recognition of my independent research group.

V, K: Our experiences in the Department of Pathology at NYU were instrumental to our growth as scientists. The working environment in the Department of Pathology is very dynamic and collaborative and has a number of resources to support research, all of which strongly contributed to the success of our work.

V: I also benefited from great mentorship by Dr. Reizis who guided me through my initial steps as a research scientist and then gradually helped me become fully independent. I really appreciated his curiosity, his scientific approach and his trust in my own research ideas, that help me gain enough confidence to launch myself in academic research. Furthermore, the research that we developed with Dr. Reizis at NYU significantly shaped the projects that I am currently working on in my own laboratory.

K: I benefited from having two great mentors in the Department of Pathology, first Dr. Aifantis for my doctoral training and then Dr. Reizis for my postdoctoral training. Both are exemplary models for me: highly creative, motivated, and brilliant scientists. In addition to their savviness as scientists, both Drs. Aifantis and Reizis are incredibly supportive mentors and continue to advise and help people long after they have left their labs.
What was the most difficult moment in your scientific career and how were you able to bypass it and succeed?

V: One difficult moment in my scientific career was the initiation of my independent path. I think this difficulty comes from moving to a novel level of responsibilities. First the initiation of this new path requires to go through a fierce competition in France to obtain a permanent position, then securing funding, then recruiting personnel and finally managing all these aspects. As a PhD student, a post-doctoral fellow and ultimately an associate research scientist my main focus was to achieve my research projects, while becoming independent confronted me to all the mentioned responsibilities that induced some extra stress and required some adjustments.

K: The transition to an independent career has also been (and continues to be) a challenging time in my career. In my case, these new responsibilities have also been accompanied with the cultural and institutional differences that moving to any new country brings. One of the most useful things that I have found is to talk to the people around me, asking questions and for advice whenever I am presented by a difficult situation or problem. Learning from others’ experiences is one thing that has helped me become more efficient.

What advice would you give a postdoc to find their way?

V, K: Try to find the best fit (lab) to your interests and a work environment that you feel the most comfortable with. You want to be happy and well-surrounded at your workplace since you will be spending a lot of time there. Explore multiple directions to ensure successful completion of your postdoctoral experience and to identify the path that you want to pursue in the future. Collaborate to avoid wasting time and resources and to establish a future network. Get involved in other tasks associated with research work, such as mentoring students, teaching, and grant writing in order to gain the most skills. This will help you to have the most options in terms of the career path that you want to follow.

How do you compare the NYU experience with other Institutions you have been in?

V, K: Our NYU experiences were some of the best compared to other institutions where we have worked. The environment is extremely friendly and helpful and has many resources available to help you achieve your research goals. In addition, a number of events are regularly organized to foster social interactions and integration into this work environment. Finally, the various invited seminar series organized by the different departments at NYU Langone provide great opportunities to learn about cutting-edge science from top-notch research centers and universities.

Could you tell us which is your current position?
B: I currently am an Associate Attending at Memorial Sloan Kettering Cancer Center

When did you leave NYU/start your new position?
B: I graduated from NYU in 2010, my supervisor was Dr. Aylin Simsir, Pathology Department. Then, I did two fellowships, oncologic surgical pathology at MSKCC and gastrointestinal pathology at MSKCC and Cornell University. Then, I became an assistant attending at MSKCC in 2012.

How did you get where you are today and how did the experience in the pathology department help you get there?
B: I have been fortunate enough to have received training in top institutions that not only offered me outstanding educational opportunities and imparted me excellent clinical skills but also nurtured me with support and allowed my development both as a dedicated and focused academician and a future leader. NYU played a tremendous role in this development, and NYU pathology has become my family.

What was the most difficult moment in your academic career and how were you able to bypass it and succeed?
B: When I was starting my residency at NYU, one of the most prestigious universities in the world, I was very excited but suddenly I found out that my visa related papers got delayed, which was devastating. But I continued to study and prepare for my residency and when the paperwork finally came, I was fully ready to execute my responsibilities in the best possible way.

What advice would you give to other trainees to find their way?
B: Appreciate the greatness of the field of pathology, work very hard and see as many cases as possible to hone their diagnostic skills, and treat their colleagues with integrity, fairness and respect. They should always look into what they can improve in themselves rather than being concerned about the external obstacles.
Upcoming Events

**ACGME Resident/Fellow/Faculty Survey**
Feb 11th to March 17th
Match spots: 7 spots in the Match
Match Day-March 15

**USCAP Annual Meeting**
March 16-21, 2019
National harbor, Maryland

**2019 USCAP Fellowship Fair**
March 17th
5:30-7:00PM

**USCAP Department Reception**
Rosa Mexicano
March 18th
6-9pm

**Department of Pathology 6th Annual Retreat**
June 14, 2019
Smilow Multipurpose & Seminar room
Suggested by You

Gordon Research Conference: Hematopoietic Stem Cells to Platelets: Roles in Hemostasis and Disease
24–1 March, Galveston, Texas, USA

Cold Spring Harbor Laboratory Meeting: Systems Immunology
13–16 March, Cold Spring Harbor, New York, USA

Keystone Symposium: Innate and Non-Classical Immune Cells in Cancer Immunotherapy
24–28 March, Keystone, Colorado, USA

Keystone Symposium: Origins of Allergic Disease: Microbial, Epithelial and Immune Interactions
24–27 March, Tahoe City, California, USA

IMMUNOLOGY 2019
9-13 May, San Diego, California, USA

International Society for Experimental Hematology/ Annual Scientific Meeting
22-25 August 2019, Brisbane, Australia

Navdeep Chandel, Ph.D.: Metabolism, mitochondria, and metformin in health and disease.
A nice podcast for everyone, but especially for people who are into metabolism. Prof. Navdeep is a big name in the field, a brilliant speaker. He will be our guest speaker for the Pathology Grand rounds Series on March 25th, hosted by Dr. Possemato

Dance your PhD!
This is the 11th year of the “Dance Your Ph.D.” contest sponsored by AAAS and Science, challenging scientists to explain their research without PowerPoint slides or jargon—in fact with no talking at all. It doesn’t matter if you’re just starting your Ph.D. or you completed it decades ago. All science should be explained with dance.

Spirals of Science

Careers in AI Science 2018
Not just for bots: The changing career landscape in AI
By Alaina G. Levine

Science 2018 Top Employers
Top employers embrace change based on a stable foundation
By Chris Tachibana

Conferences score well on child care
Male-dominated disciplines lead the pack

From NYAS:
Cancer Metabolism and Signaling
Thursday, May 9, 2019
The New York Academy of Sciences, 7 World Trade Center, 250 Greenwich St FL 40, New York

Frontiers in Cancer Immunotherapy
Tuesday, May 14, 2019, 8:30 AM - Wednesday, May 15, 2019, 6:00 PM
The New York Academy of Sciences, 7 World Trade Center, 250 Greenwich St FL 40, New York
for more interesting events organized by NYAS click here
https://www.nyas.org/
Meet the Team

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Q: How many Ph.D.’s does it take to get a PowerPoint presentation to work?

Answer: \((n+1)\)

where \(n\) is the number of academics in the room who think they know how to fix it, and \(i\) is the person who finally calls the A/V technician.