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# The Nikolaus Schultz Lab

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FOR THE MEDIA



Nikolaus Schultz, PhD

Director, Cancer Data Science Initiative; Head of Knowledge Systems, Marie-Josée & Henry R. Kravis Center for Molecular Oncology; Attending Computational Oncologist, Department of Epidemiology & Biostatistics

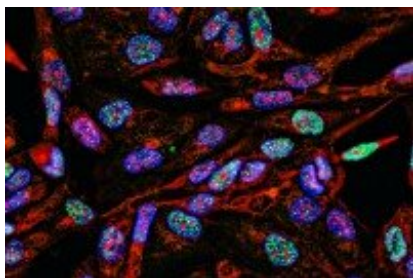
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The Schultz lab focuses on identifying the genomic alterations that underlie different types of cancer. By applying existing and novel computational methods to large scale cancer genomics data sets, the lab aims to better understand the complex mechanisms at the gene and at the pathway level that drive tumor initiation, progression and response to therapy, with the ultimate goal of identifying targeted therapeutic options for cancer patients. A new focus of the lab is the systematic

extraction and standardization of clinical data elements from electronic health records. The lab is also involved in collaborative large-scale projects such as The Cancer Genome Atlas (TCGA), AACR Project GENIE, and the Human Tumor Atlas (HTAN). The group also has a strong interest in enabling discoveries by developing novel computational methods and databases that help bridge the divide between computer scientists on one side and clinicians and researchers on the other. Examples of these include the cBioPortal for Cancer Genomics, a popular resource for the visualization and analysis of cancer genomics data, and OncoKB®, a precision oncology knowledgebase.



## Featured News



### [The Mystery of Metastasis: Can a Tumor's Genetic Mutations Predict Whether and Where Cancer Will Spread?](#)

Data from 25,000 patients is helping scientists answer this and many other important questions.

## FEATURE



## [A Milestone for Precision Oncology: FDA Gives Green Light to MSK's Genetic Database](#)

OncoKB, a database developed and maintained by investigators at MSK, helps match patients with targeted therapies based on the mutations found in their tumors.

## IN THE LAB



## [What Was MSK's Role in TCGA, the Groundbreaking Cancer Genomic Study?](#)

The multicenter project, which yielded dozens of scientific papers on more than 30 different kinds of cancer, has officially drawn to a close.

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## Publications Highlights

Jee J, Fong C, Pichotta K, Tran TN, Luthra A, Waters M, Fu C, Altøe M, Liu SY, Maron SB, Ahmed M, Kim S, Pirun M, Chatila W, de Bruijn I, Pasha A, Kundra R, Gross B, Mastrogiacomo B, Aprati TJ, Liu D, Gao J, Capelletti M, Pekala K, Loudon L, Perry M, Bandlamudi C, Donoghue M, Satravada BA, Martin A, Shen R, Chen Y, Brannon AR, Chang J, Braunstein L, Li A, Safonov A, Stonestrom A, Sanchez-Vela P, Wilhelm C, Robson M, Scher H, Ladanyi M, Reis-Filho JS, Solit DB, Jones DR, Gomez D, Yu H, Chakravarty D, Yaeger R, Abida W, Park W, O'Reilly EM, Garcia-Aguilar J, Socci N,

Sanchez-Vega F, Carrot-Zhang J, Stetson PD, Levine R, Rudin CM, Berger MF, Shah SP, Schrag D, Razavi P, Kehl KL, Li BT, Riely GJ, Schultz N, MSK Cancer Data Science Initiative Group. Automated real-world data integration improves cancer outcome prediction. *Nature*. In press.

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Suehnholz SP, Nissan MH, Zhang H, Kundra R, Nandakumar S, Lu C, Carrero S, Dhaneshwar A, Fernandez N, Xu BW, Arcila ME, Zehir A, Syed A, Brannon AR, Rudolph JE, Paraiso E, Sabbatini PJ, Levine RL, Dogan A, Gao J, Ladanyi M, Drilon A, Berger MF, Solit DB, Schultz N, Chakravarty D. Quantifying the Expanding Landscape of Clinical Actionability for Patients with Cancer. *Cancer Discov*. 2024 Jan 12

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Nguyen B, Fong C, Luthra A, Smith SA, DiNatale RG, Nandakumar S, Walch H, Chatila WK, Madupuri R, Kundra R, Bielski CM, Mastrogiacono B, Donoghue MTA, Boire A, Chandarlapaty S, Ganesh K, Harding JJ, Iacobuzio-Donahue CA, Razavi P, Reznik E, Rudin CM, Zamarin D, Abida W, Abou-Alfa GK, Aghajanian C, Cercek A, Chi P, Feldman D, Ho AL, Iyer G, Janjigian YY, Morris M, Motzer RJ, O'Reilly EM, Postow MA, Raj NP, Riely GJ, Robson ME, Rosenberg JE, Safonov A, Shoushtari AN, Tap W, Teo MY, Varghese AM, Voss M, Yaeger R, Zauderer MG, Abu-Rustum N, Garcia-Aguilar J, Bochner B, Hakimi A, Jarnagin WR, Jones DR, Molena D, Morris L, Rios-Doria E, Russo P, Singer S, Strong VE, Chakravarty D, Ellenson LH, Gopalan A, Reis-Filho JS, Weigelt B, Ladanyi M, Gonen M, Shah SP, Massague J, Gao J, Zehir A, Berger MF, Solit DB, Bakhoum SF, Sanchez-Vega F, Schultz N. Genomic characterization of metastatic patterns from prospective clinical sequencing of 25,000 patients. *Cell*. 2022 Feb 3

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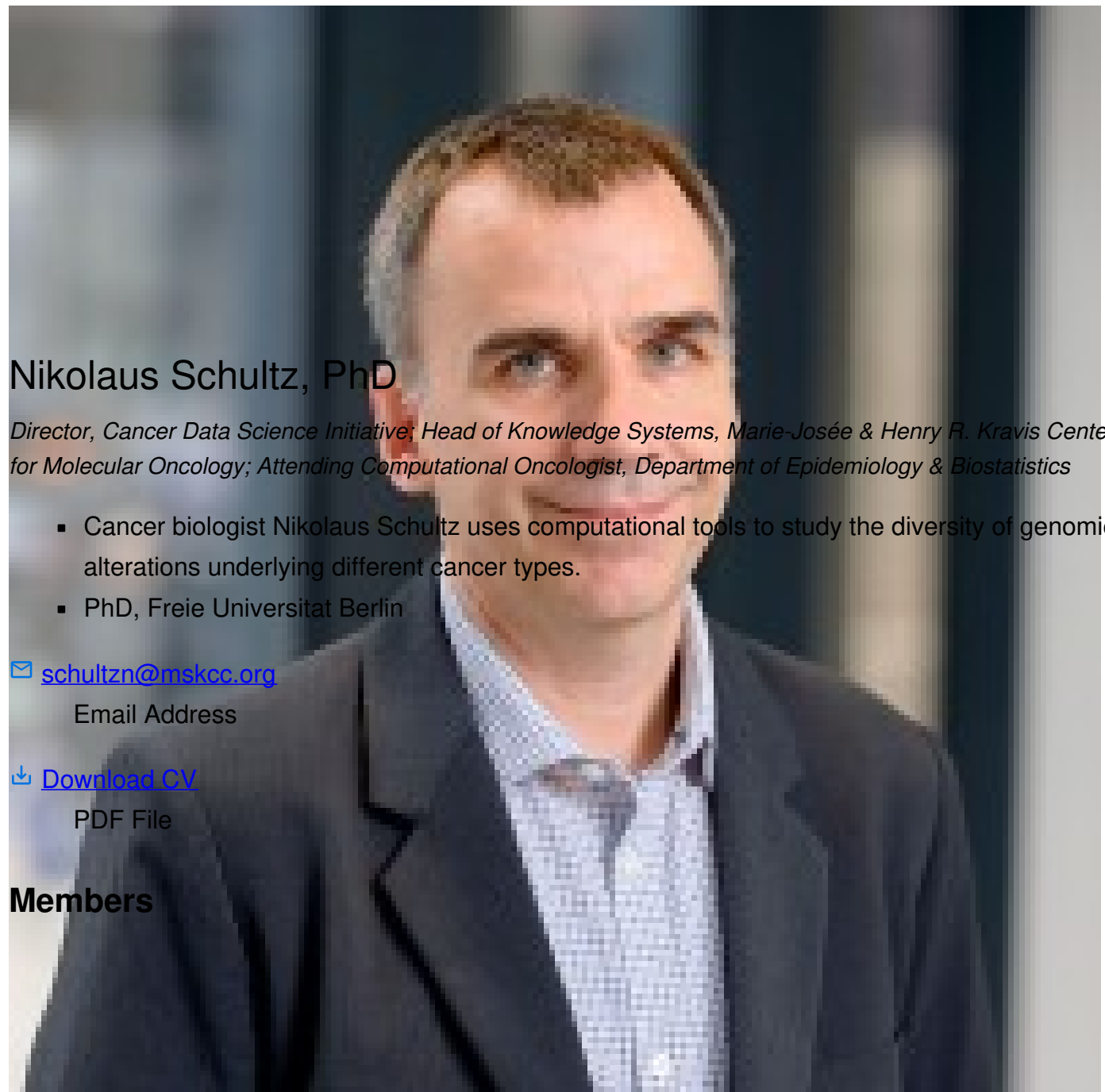
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Lotter W, Hassett MJ, Schultz N, Kehl KL, Van Allen EM, Cerami E. Artificial Intelligence in Oncology: Current Landscape, Challenges, and Future Directions. Cancer Discov. 2024 May 1

[View All Publications](#)

## People



**Nikolaus Schultz, PhD**

*Director, Cancer Data Science Initiative; Head of Knowledge Systems, Marie-Josée & Henry R. Kravis Center for Molecular Oncology; Attending Computational Oncologist, Department of Epidemiology & Biostatistics*

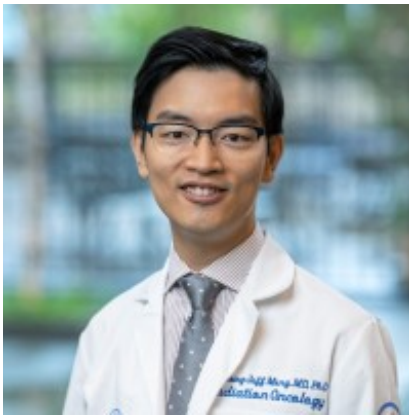
- Cancer biologist Nikolaus Schultz uses computational tools to study the diversity of genomic alterations underlying different cancer types.
- PhD, Freie Universitat Berlin

✉ [schultzn@mskcc.org](mailto:schultzn@mskcc.org)  
Email Address

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**Members**

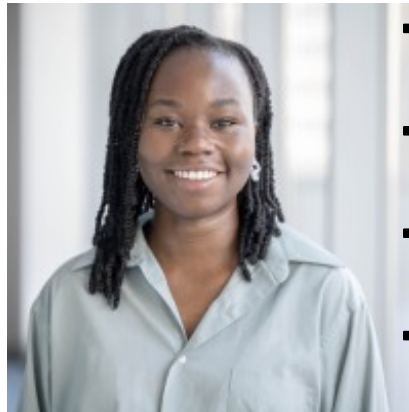




Jeff Meng  
Postdoctoral Fellow,  
Computational Oncology;  
Resident Physician, Radiation  
Oncology



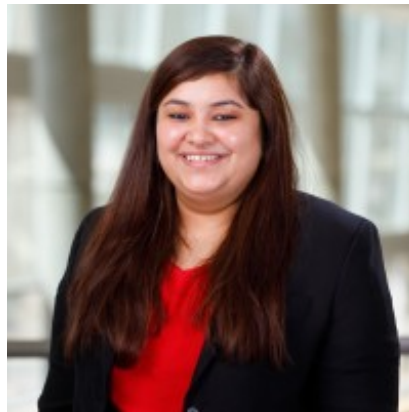
Sharafudeen Abubakar  
Research Fellow



Tejiri Agbamu  
GSK Graduate Student



Areej Alsaafin  
Research Fellow



Pranita Atri  
Research Fellow

Lab  
Alumni

Lab Affiliations

## Achievements

- Memorial Hospital Award for Excellence in Mentoring (2022)
- Geoffrey Beene Junior Faculty Chair (2019)
- [Josie Robertson Investigator \(2013-2018\)](#)
- Stupski Prize in Prostate Cancer Computational Oncology (2015)
- Young Investigator Award, Prostate Cancer Foundation (2014)

## Open Positions

To learn more about available postdoctoral opportunities, please visit our [Career Center](#)

To learn more about compensation and benefits for postdoctoral researchers at MSK, please visit [Resources for Postdocs](#)

## Postdoctoral Researcher, Cancer Genomics – Schultz Laboratory Memorial Sloan Kettering Cancer Center

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Anika Begum  
Senior Project Coordinator



Kevin M. Boehm  
Postdoctoral Fellow,  
Computational Oncology;  
Resident Physician, Radiation  
Oncology



Walid Chatila  
Senior Computational Biologist  
II



Nikolaos Dimitriou  
Research Fellow



Ino de Bruijn  
Bioinformatics Software  
Engineer III



Jordan Eichholz  
Computational Biologist I

## Get in Touch

✉ [schultzn@mskcc.org](mailto:schultzn@mskcc.org)

Lab Head Email

☎ [646-888-2604](tel:646-888-2604)

Lab Phone

## Disclosures

Members of the MSK Community often work with pharmaceutical, device, biotechnology, and life sciences companies, and other organizations outside of MSK, to find safe and effective cancer treatments, to improve patient care, and to educate the health care community. These activities outside of MSK further our mission, provide productive collaborations, and promote the practical application of scientific discoveries.

MSK requires doctors, faculty members, and leaders to report (“disclose”) the relationships and financial interests they have with external entities. As a commitment to transparency with our community, we make that information available to the public. Not all disclosed interests and relationships present conflicts of interest. MSK reviews all disclosed interests and relationships to assess

whether a conflict of interest exists and whether formal COI management is needed.

Nikolaus Schultz discloses the following relationships and financial interests:



## Innovation in Cancer Informatics



Christopher Fong  
Bioinformatics Software  
Engineer III



Chenlian (Tom) Fu  
WGS Student



Xiang (Molly) Han  
WGS Student



Justin Jee  
Instructor



Ritika Kundra  
Bioinformatics Software  
Engineer

- Professional Services and Activities  
(Uncompensated)

- Stand Up to Cancer

- Professional Services and Activities

The information published here is a complement to other publicly reported data and is for a specific annual disclosure period. There may be differences between information on this and other public sites as a result of different reporting periods and/or the various ways relationships and financial interests are categorized by organizations that publish such data.

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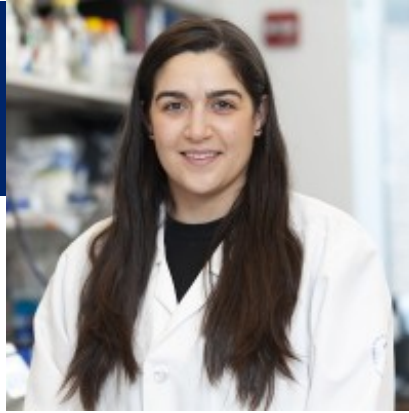
This page and data include information for a specific MSK annual disclosure period (January 1, 2024 through disclosure submission in spring 2025). This data reflects interests that may or may not still exist. This data is updated annually.

Learn more about MSK's COI policies [here](#) . For questions regarding MSK's COI-related policies and procedures, email MSK's Compliance Office at [ecoi@mskcc.org](mailto:ecoi@mskcc.org) .

[View all disclosures \(https://www.mskcc.org/disclosures\)](https://www.mskcc.org/disclosures)



Desiree Lara  
Program Assistant  
Enrico Moiso  
Senior Computational Biologist I



Brooke Mastrogiamomo  
Computational Biologist II  
Fatema Nagib  
NE Agency Contingent



Subhiksha Nandakumar  
Senior Computational Biologist I



John Nguyen  
WGS Student



Kwabena (Kobbie) Ofori-Atta  
WGS Student



Karl Pichotta  
Senior Computational Biologist  
II



Julia Rudolph  
Associate Director, CRC  
Initiatives



Evan Seffar  
Computational Biologist I



Farheen Shah  
Computational Biologist I



Henry Walch  
Computational Biologist II



Michele Waters  
Senior Computational Biologist



Jierui (Jerry) Xu  
Computational Biologist I