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EPIDEMIOLOGY & BIOSTATISTICS

# The Nikolaus Schultz Lab

ABOUT US

Our mission, vision & core values

Leadership

History

Equality, diversity & inclusion

Annual report

Give to MSK

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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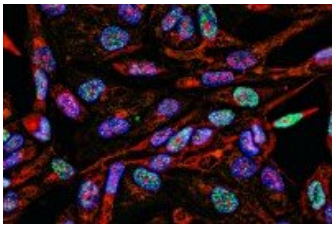
The Schultz lab focuses on identifying the genomic alterations that underlie different types of cancer. By applying existing and novel computational methods to large scale cancer genomics data sets, the lab aims to better understand the complex mechanisms at the gene and at the pathway level that drive 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.

View All Featured News

# Publications Highlights

Kahn RM, Selenica P, Boerner T, Roche KL, Xiao Y, Sia TY, Maio A, Kemel Y, Sheehan M, Salo-Mullen E, Breen KE, Zhou Q, Iasonos A, Grisham RN, O'Cearbhaill RE, Chi DS, Berger MF, Kundra R, Schultz N, Ellenson LH, Stadler ZK, Offit K, Mandelker D, Aghajanian C, Zamarin D, Sabbatini P, Weigelt B, Liu YL. Pathogenic germline variants in non-BRCA1/2 homologous recombination genes in ovarian cancer: Analysis of tumor phenotype and survival. Gynecol Oncol. 2023 Dec 1;180:35-43.

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Jiagge E, Jin DX, Newberg JY, Perea-Chamblee T, Pekala KR, Fong C, Waters M, Ma D, Dei-Adomakoh Y, Erb G, Arora KS, Maund SL, Njiraini N, Ntekim A, Kim S, Bai X, Thomas M, van Eeden R, Hegde P, Jee J, Chakravarty D, Schultz N, Berger MF, Frampton GM, Sokol ES, Carrot-Zhang J. Tumor sequencing of African ancestry reveals differences in clinically relevant alterations across common cancers. Cancer Cell. 2023 Oct 23:S1535-6108(23)00359-8.

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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. 2023 Oct 18.

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Lumish MA, Walch H, Maron SB, Chatila W, Kemel Y, Maio A, Ku GY, Ilson DH, Won E, Li J, Joshi SS, Gu P, Schattner MA, Laszkowska M, Gerdes H, Jones DR, Sihag S, Coit DG, Tang LH, Strong VE, Molena D, Stadler ZK, Schultz N, Janjigian YY, Cercek A. Clinical and Molecular Characteristics of Early-Onset versus Average-Onset Esophagogastric Cancer. J Natl Cancer Inst. 2023 Sep 12:djad186.

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Skakodub A, Walch H, Tringale KR, Eichholz J, Imber BS, Vasudevan HN, Li BT, Moss NS, Hei Yu KK, Mueller BA, Powell S, Razavi P, Yu HA, Reis-Filho JS, Gomez D, Schultz N, Pike LRG. Genomic analysis and clinical correlations of

non-small cell lung cancer brain metastasis. Nat Commun. 2023 Aug 17;14(1):4980.

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.

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### Members

### Anika Begum

Senior Project Coordinator

### Kevin M. Boehm

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### Ino de Bruijn

Bioinformatics Software Engineer III

### Nikolaos Dimitriou

Research Fellow

### Jordan Eichholz

Computational Biologist I

### Christopher Fong

Bioinformatics Software Engineer III

### Chenlian (Tom) Fu

WGS Student

### Xiang (Molly) Han

WGS Student

### Justin Jee

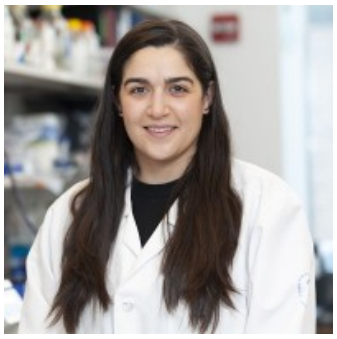
Instructor

### Ritika Kundra

### Desiree Lara

Program Assistant

Bioinformatics Software Engineer



Brooke Mastrogiacomo

Computational Biologist II

Enrico Moiso

Senior Computational Biologist I

Fatema Nagib

NE Agency Contingent

Subhiksha Nandakumar

Senior Computational Biologist I

John Nguyen

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Julia Rudolph

Associate Director, CRC Initiatives

Evan Seffar

Computational Biologist I

Farheen Shah

Computational Biologist I

Thinh Tran

GSK Graduate Student

Henry Walch

Computational Biologist II

Michele Waters

Senior Computational Biologist

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

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

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## Get in Touch

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## Disclosures

Doctors and faculty members 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.

MSK requires doctors and faculty members 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.

Nikolaus Schultz discloses the following relationships and financial interests:

Cambridge Innovation Institute

Professional Services and Activities (Uncompensated)

Innovation in Cancer Informatics

Professional Services and Activities (Uncompensated)

Novartis

Professional Services and Activities

OneOncology

Professional Services and Activities

The information published here 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, 2022 through disclosure submission in spring 2023). 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.

View all disclosures →

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## Research & Education

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