

# KASIA KEDZIERSKA

I am a 3rd year PhD student at the University of Oxford. I am a computational biologist, i.e., I use Data Science and Statistical Machine Learning to answer biological questions. Specifically, I study cancer of the uterus and chromatin organisation in disease progression.



## SELECTED RESEARCH EXPERIENCE

2022  
|  
2018

### ● DPhil Candidate

Wedge group and Church group

📍 University of Oxford, UK

- PhD project: *Functional and evolutionary characterisation of chromatin organisation in endometrial cancer*

2018  
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2017

### ● Visiting Graduate Student

Ratan group

📍 University of Virginia, USA

- Developed SONICS - a tool for genotyping short tandem repeats (STRs) profiled using capture assays.
- Worked on the Master thesis - *Analysis of the mutational burden across gene sets in cancer*.

2016  
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2015

### ● Research Assistant

Zebrafish Developmental Genomics

📍 IIMCB, Warsaw, Poland

- I worked on the project: *Elucidating gene regulatory network of zebrafish heart development using genomics*.
- I was responsible for both computational and experimental aspects of the project.



## EDUCATION

2022  
|  
2018

### ● DPhil. Candidate, Genomic Medicine and Statistics

Nuffield Department of Medicine, Brasenose College

📍 University of Oxford, UK

- PhD fully funded by Wellcome Trust Four-year PhD Studentships in Science

2018  
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2015

### ● M. Sc. Eng., Biotechnology

Warsaw University of Technology

📍 Warsaw, Poland

- Thesis: *Analysis of the mutational burden across gene sets in cancer*.
- Thesis awarded the best Master thesis in Bioinformatics defended in 2018 title.



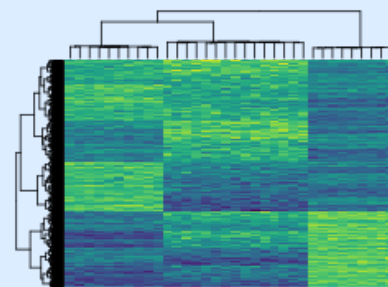
## PUBLICATIONS

2020

### ● The *MLH1* polymorphism rs1800734 and risk of endometrial cancer with microsatellite instability

H. Russell, K. Kedzierska, D. D. Buchanan, R. Thomas, E. Tham, M. Mints, A. Keränen, G. G. Giles, M. C. Southey, R. L. Milne, I. Tomlinson, D. Church, A. B. Spurdle, T. A. O'Mara and A. Lewis

📍 Clinical Epigenetics



View this CV online on [kasia.codes/resume/](https://kasia.codes/resume/)

## CONTACT

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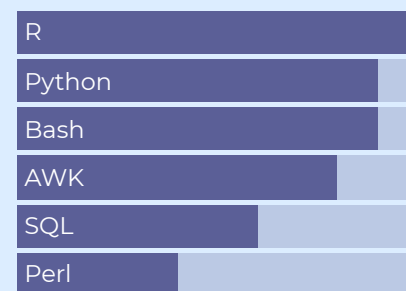
🐦 [kzkedzierska](https://twitter.com/kzkedzierska)

🔗 [github.com/kzkedzierska](https://github.com/kzkedzierska)

🌐 [kasia.codes](https://kasia.codes)

in [kzkedzierska](https://www.linkedin.com/company/kzkedzierska)

## CODING SKILLS



Made with the R package [pagedown](#).

Based on the [Nick Strayer's CV package](#); modified source code for this CV is available [here](#).

Last updated on 2021-02-11.

- 2020 ● **Prognostic integrated image-based immune and molecular profiling in early-stage Endometrial Cancer**  
N. Horeweg, M. de Bruyn, R. A. Nout, E. Stelloo, **K. Kedzierska**, A. León-Castillo, A. Plat, K. D. Mertz, M. Osse, I. M. Jürgenliemk-Schulz, L. C.H.W. Lutgens, J. J. Jobsen, E. M. van der Steen-Banasik, V. T. Smit, C. L. Creutzberg, T. Bosse, H. W. Nijman, V. H. Koelzer and D. N. Church  
📍 Cancer Immunology Research
- 2019 ● **Dynamics of cardiomyocyte transcriptome and chromatin landscape demarcates key events of heart development**  
M. Pawlak, **K. Z. Kedzierska**, M. Migdal, K. A. Nahia, J. A. Ramilowski, L. Bugajski, K. Hashimoto, A. Marconi, K. Piwocka, P. Carninci and C. L. Winata  
📍 Genome Research
- 2018 ● **Genomic analysis of DNA repair genes and androgen signaling in prostate cancer**  
K. Jividen, **K. Z. Kedzierska**, C.-S. Yang, K. Szlachta, A. Ratan and B. M. Paschal  
📍 BMC Cancer
- 2018 ● **SONICS: PCR stutter noise correction in genome-scale microsatellites**  
**K. Z. Kedzierska**, L. Gerber, D. Cagnazzi, M. Krützen, A. Ratan, L. Kistler  
📍 Bioinformatics



## SELECTED TALKS AND POSTERS

- 2019 ● **Analysis of the mutational burden across gene sets in cancer**  
Polish Bioinformatics Society Symposium 📍 Cracow, Poland  
• Invited talk
- 2018 ● **Differential mutation analysis across gene sets in cancers**  
The Biology of Genomes 2018 📍 Cold Spring Harbor, NY, USA  
• Poster



## SELECTED AWARDS AND HONOURS





- 2019  
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2018 ● **Best Master Thesis in Bioinformatics**  
• *Analysis of the mutational burden across gene sets in cancer* - Best Master Thesis defended in Bioinformatics in 2018 in Poland.



## ATTENDED WORKSHOPS, SUMMER SCHOOLS

- 2019 ● **Machine Learning Summer School**  
Imperial College London, University College London  
📍 London, United Kingdom

## TEACHING EXPERIENCE

- 2020
- **Online tutorials: Python for Data Science and Introduction to Python**  
NGSeminars  YouTube
    - I led two Python tutorials: [Introduction to Python](https://kasia.codes/talk/intro_to_python/) [kasia.codes/talk/intro\\_to\\_python/](https://kasia.codes/talk/intro_to_python/) and [Python for Data Science](https://kasia.codes/talk/py4ds/) [kasia.codes/talk/py4ds/](https://kasia.codes/talk/py4ds/).
- 2020  
|  
2019
- **Introduction to Managing Code with Git**  
Wellcome Centre for Human Genetics  Oxford, United Kingdom
    - I led a 2-hour introduction to working with Git. Materials, including slides and exercises are available at [kasia.codes/talk/into\\_to\\_git/](https://kasia.codes/talk/into_to_git/).
- 2019
- **Unsupervised learning, Introduction to Python**  
[#NGSchool2019: Machine Learning for Biomedicine](#)  Ostróda, Poland
    - Tutor for the Introduction to Python (3 h workshop) and for the Unsupervised learning (1,5 h lecture).
    - Materials for the Introduction to Python are available on [github](#)
- 2019
- **Introduction to R**  
Wellcome Centre for Human Genetics  Oxford, United Kingdom
    - 8 week course in Introduction to R, Data Manipulation, Data Visualisation and RNA-seq data analysis.
    - Materials available on [github/kzkedziersa/r\\_intro](#)

## SELECTED GRANTS

- 2021  
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2020
- **Visegrad Grant to organize [#NGSchool2020](#) - postponed until 2021**  
[Visegrad Fund](#)
    - 32,190 EUR awarded towards organising #NGSchool2020 and #NGSymposium. Both events are postponed until 2021.

## NON-PROFIT WORK

- 2021  
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2018
- **President**  
[NGSchool Society](#)
    - The goal of the Society is to promote and support science, with emphasis on computational biology.
    - President since 2019; Vice President 2018 - 2019

I like teaching and deeply believe in Open Science. With [#NGSchool Society](#) which I'm the president of, I've been organising Summer Schools in Bioinformatics. During [#NGSchool2019: Machine Learning for Biomedicine](#) we recorded and published some of the lectures. Nowadays, because of the pandemic, we switched to organising virtual events - [NGSeminars series](#). We made all the content publicly available.