

PhD@MDC 2019



384
PhD
students



57% women
43% men

60%
coming from
abroad

56
nations

2 RECRUITMENT ROUNDS A YEAR

SPRING 19



535 applicants



71 nations



36 invited candidates



47% women
53% men



9 central positions
6 third-party positions



15 new PhDs



47% women
53% men



67% international

FALL 19



451 applicants



65 nations



41 invited candidates



61% women
39% men



8 central positions
9 third-party positions
2 MDC-NYU positions



19 new PhDs



63% women
37% men



63% international

MODULAR CURRICULUM

The MDC Graduate school curriculum consists of scientific and personal skills training modules. The credit point system was developed in cooperation with partner universities.



TRAINING

30

**personal skills
courses organized**

4

student seminar series:

Sys-Bio Student Seminar
Neurobiology Seminar
Cancer Student Seminar
Wollenberger Seminar

71

**travel grants for
conferences, workshops
and work visits**

PRIZE FOR KATRINA MEYER



Photo: Felix Petermann, MDC

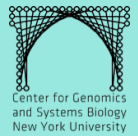
Every year, the Helmholtz Doctoral Prize is awarded to successful doctoral researchers from each of six Helmholtz Association Research Fields. This year, the Helmholtz Prize in the field Health was awarded to Katrina Meyer, for her dissertation "A peptide-based interaction screen on disease-related mutations", research conducted in the lab of Matthias Selbach.

Earlier this year, Katrina received the KlarText Prize for Science Communication, awarded by the Tschira Foundation, for her article entitled "Verirrte Proteine".

Meyer K. Kirchner M, Uyar B, Cheng JY, Russo G, Hernandez-Miranda LR, Szymborska A, Zauber H, Rudolph IM, Willnow TE, Akalin A, Haucke V, Gerhardt H, Birchmeier C, Kühn R, Krauss M, Diecke S, Pascual JM, Selbach M. (2018) Mutations in disordered regions can cause disease by creating dileucine motifs. Cell. 175(1):239-253.e17. doi: 10.1016/j.cell.2018.08.019.

3 SPECIALISED RESEARCH SCHOOLS

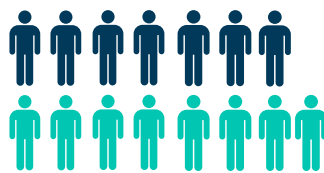
MDC-NYU



- 4 student publications in 2019 (2 first-author)
- Seminar by alumni Matthias Munschauer, now group leader at Helmholtz Institute for RNA based infection research (HIRI)
- MDC-NYU Bilateral Meeting, New York, Dec 2019

Most recent paper: Legnini I*, **Alles J***, Karaikos N, Ayoub S, Rajewsky N. (2019) FLAM-seq: full-length mRNA sequencing reveals principles of poly(A) tail length control. Nat Methods. 2019 Sep;16(9):879-886.

SignGene



7 students in Israel
8 students in Germany

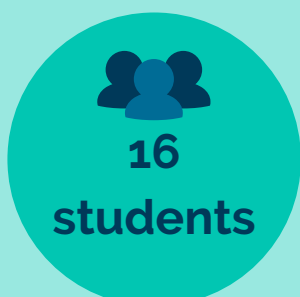
3 German partner institutions
(MDC, Charité, HU zu Berlin)

2 Israeli partner institutions
(HUJI, Technion)

- 4 PhD defenses in 2019
- Winter School in Nahsholim, Israel, Mar 2019
- Symposium in Neuruppin, Germany, Sep 2019

Most recent paper: **Friedrich D***, Friedel L, Finzel A, **Herrmann A***, Preibisch S, **Loewer A*** (2019) Stochastic transcription in the p53-mediated response to DNA damage is modulated by burst frequency. Molecular Systems Biology. 15:eg068

HEIBRiDS



4 Einstein Center Digital Future (ECDF) partner institutions (Charité, HU zu Berlin, FU Berlin, TU Berlin)

6 Helmholtz Centers partner institutions (MDC, AWI, DESY, DLR, GFZ, HZB)

- 3 publications in 2019 (all first author)
- 3 participations at international conferences with poster or oral presentations
- HEIBRiDS Spring School, Templin, Germany, Mar 2019

Most recent paper: **Tillmann, P**, Jäger, K, Becker, C. (2020). Minimising the levelised cost of electricity for bifacial solar panel arrays using Bayesian optimization. Sustainable Energy Fuels, DOI: 10.1039/C9SE00750D

EVENTS



Photo: Felix Petermann, Grietje Krabbe, Hanna Singer, Eirini Kouskoumvekaki, Sanja Drakulic, Communications MDC.

PUBLICATIONS



Photo: Felix Petermann, MDC

83% graduates with publication
30% graduates with first-author publication
2.8 average number of publications per graduate

The 2019 PhD Prize, was awarded to Karlien Yvonne Debus, PhD student from the Lewin lab. In her publication (Ole Eigenbrod, Karlien Debus et al. (2019): „Rapid molecular evolution of pain insensitivity in multiple African rodents“), published in Science, she investigated why highveld mole rats don't feel pain when stung by some venomous insects. Papers by PhD students Jonathan Alles, Eleni Kabrani, and Daniel Wenz were awarded the second place sponsored by the Society of Friends of the MDC.

Wenz D, Nagel AM, Lott J, Kuehne A, Niesporek SC, Niendorf T. (2020) In vivo potassium MRI of the human heart. Magn Reson Med. 83(1):203-213. doi: 10.1002/mrm.27951.

Kabrani E, Chu VT, Tasouri E, Sommermann T, Baßler K, Ulas T, Zenz T, Bullinger L, Schultze JL, Rajewsky K, Sander S. (2018) Nuclear FOXO1 promotes lymphomagenesis in germinal center B cells. Blood 132 (25): 2670-2683.

Legnini I*, **Alles J***, Karaikos N, Ayoub S, Rajewsky (2019) FLAM-seq: full-length mRNA sequencing reveals principles of poly(A) tail length control. N. Nat Methods. 16(g):879-886. doi: 10.1038/s41592-019-0503-y

Eigenbrod O, **Debus KY**, Reznick J, Bennett NC, Sánchez-Carranza O, Omerbašić D, Hart DW, Barker AJ, Zhong W, Lutermann H, Katandukila JV, Mgone G, Park TJ, Lewin GR. (2019) Rapid molecular evolution of pain insensitivity in multiple African rodents. Science. 364(6443):852-859. doi: 10.1126/science.aau0236.

OUTLOOK 2020



Photo & Images: Thoralf Niendorf, Hanna Singer, CRG Barcelona, Felix Noak,

HIGHLIGHTS

New Orientation session series

In 2019, the Graduate office established a mandatory, 2-day orientation event for all newly arrived PhD candidates. The event includes scientific training, Good-scientific practice training, orientation on university registration, and an overview of other opportunities at the MDC. A buddy-program helps to familiarize with the non-hosting campus.

Recruitment on two campuses

After BIMSB's relocation to its new building, the central PhD recruitment was extended to serve both locations. Candidates meet project leaders at each location during the 1-week recruitment procedure.

Erasmus+ program at the MDC

Together with our partners from Humboldt Universität, MDC now offers a possibility of conducting a master thesis research to students of Taras Shevchenko National University of Kyiv (KNU), participating in the Erasmus+ program. Currently, the first two Master candidates have started their master research in the MDC labs.

iNAMES - Helmholtz Int. Research School

In the 2019, MDC was awarded the Helmholtz Int. Research School iNAMES to fund collaborative PhD projects on different imaging scales between MDC and Weizmann Institute (Israel). During the next 6 years, ca. 25 PhD candidates will be recruited and serve MDC's strategy to extend our imaging expertise to new modalities and analysis methods.

LIBRA 2015 - 2019 and Gender Equality in EU-LIFE

LIBRA brought together ten research institutes in life sciences in ten European countries. With the overarching goal to increase the representation and participation of women in leadership positions in life sciences, LIBRA received EC funding from Oct 2015 to March 2019. To continue the work on Gender Equality and further improve practices and policies, EU-LIFE has started the LIBRA working group in November 2019.





55 GRADUATES

Asaro Antonino
 Ast Anne
 Barth Carolin
 Bartolini Laura
 Bartolomaeus Hendrik
 Bluhm Julia
 Boiani Sara
 Ciolli Mattioli Camilla
 Demminger Corinna
 Dewitz Carola
 Donat Stefan
 Elkewedi Mohamed Mostafa Hassan
 Ferreira Guimaraes Silva Ana Luisa
 Fichtner Susanne
 Friedrich Dhana
 Fürst Carina Iris
 Glazar Petar
 Grosche Sarah

Grunwald Stephan
 Güneykaya Dilansu
 Haage Verena
 Hall James
 Hönig Katrin
 Imbastari Francesca
 Inak Gizem
 James Alva Rani
 Karabacak Aslihan
 Klockmeier Konrad
 Kolinski Marcin
 Konrath Fabian
 Kräker Kristin
 Lips Christian
 Meyer Katrina
 Newman Andrew
 Ofenbauer Andreas
 Petrovic Sasa
 Pluska Lukas

Radhakrishnan Harikrishnan
 Rogowski Karol
 Rothe Michael
 Ruhe Larissa
 Strasen Henriette
 Sünkel Christin
 Teufel Lotte
 van den Bruck David
 Wahle Philipp
 Wesolowski Radoslaw
 Willnow David
 Wirges Anthea
 Witt Marie
 Yue Bin
 Yurtdas Zeliha Yesim
 Zappulo Alessandra
 Zhong Wei
 Zincke Fabian

10 PHD REPRESENTATIVES



Photo: Communications, MDC

Lorena Sofia Lopez Zepeda, Benedikt Kortuem, Andre Felipe Rodrigues, Laura Breimann, Marta Bastos de Oliveira, Anita Waltho, Remo Monti, Eric Danner, Mirjam van Bentum, Vasiliki Anastasopoulou