

Alex Faesen, PhD

(March 2020)

Scientific experience and education

Max-Planck Research Group Leader
Max-Planck Institute of Biophysical Chemistry, Göttingen
Since August 2017

Post-doctoral fellow

Max-Planck Institute of Molecular Physiology, Dortmund
Jan. 2012 – July 2017
Advisor: Prof. Dr. Andrea Musacchio.

Graduate Student

Netherlands Cancer Institute, Amsterdam
Sept. 2005 to Dec. 2011
Advisor: Prof. Dr. Titia Sixma

Honors and awards

- Awarded Max-Planck Research Group Leader position (2017)
- Winner lecture award EMBO Workshop “Chromosome segregation and aneuploidy” (2016)
- Winner best poster award EMBO Workshop “Dynamic Kinetochore” (2015)
- Awarded Fellowship Boehringer Ingelheim Stiftung (2015)
- Awarded Marie Curie Intra-European Fellowship (2012)
- Awarded EMBO long-term fellowship (2012)
- Awarded von Humboldt Research Fellowship for Postdoctoral Researchers (2012, declined)
- Winner of NWO-CW Best Lecture Award (2010)
- Winner of CGC/CBG poster prize and travel grant (2010)
- Awarded "best graduation of BioMedical Engineering" (2006)
- Nomination Mignot prize (2006)
- Winner of Young KNCV prize (2005)
- Awarded Erasmus student travel grant (2004)

Teaching

- Faculty member Georg-August University School of Science (GAUSS), ‘prüfungsberechtigt’, granting graduation rights)
- Faculty member International Max Planck Research School (IMPRS) for Molecular Biology
- Board member Göttingen Graduate Center for Neurosciences, Biophysics, and Molecular Biosciences (GGNB)
- Member admission panel GGNB doctoral program “Biomolecules: Structure – Function -Dynamics”
- Lectures and seminars for IMPRS Molecular Biology program
- DNA introductory course for IMPRS Molecular Biology program
- Seminar and lectures on cell biology, biophysics and biochemistry IBioBA / MPG Workshop
- Member of 12 thesis advisory committees
- Member of >20 thesis defense committees
- Supervision of rotation students (10), undergraduate

- students (4), graduate students (10) and postdocs (4)
- Coordination of specialized seminars and journal clubs

Third-party funding

- SFB1190 (2020-2023)
- Travel grant Boehringer Ingelheim Stiftung (2015)
- Marie Curie Intra-European Fellowship (2012)
- EMBO long-term fellowship (2012)
- von Humboldt Research Fellowship for Postdoctoral Researchers (2012)

Other activities

Founder and organizer of monthly MPI-BPC faculty chalk talk meeting (since 2019)

Boardmember of GGNB doctoral program "Biomolecules: Structure – Function -Dynamics" (since 2019)

Co-founder and co-organizer of monthly MPI-BPC Young PI group (since 2018)

Co-organiser of MPI-BPC and MPI-DS campus seminar series (since 2018)

Reviewer for Cell, Mol Cell, Nature Communications, Autophagy.

Publications

Pesenti ME, Prumbaum D, Auckland P, Smith CM, **Faesen AC**, Petrovic A, Erent M, Maffini S, Pentakota S, Weir JR, Lin YC, Raunser S, McAinsh AD, Musacchio A. "Reconstitution of 26-Subunit Human Kinetochore reveals Cooperative Microtubule Binding by CENP-OPQUR and NDC80" **Mol. Cell** (2018)

Overlack K, Bange T, Weissmann F, **Faesen AC**, Maffini S, Primorac I, Müller F, Peters JM, Musacchio A. "BubR1 promotes Bub3-dependent APC/C inhibition during spindle assembly checkpoint signaling" **Curr. Biol.** (2017)

Faesen AC[#], Thanasoula M, Maffini S, Breit C, Müller F, van Gerwen S, Bange T, Musacchio A[#]. "Basis of catalytic assembly of the mitotic checkpoint complex" **Nature** (2017) Feb 23;542(7642):498-502. doi: 10.1038/nature21384
[#] *Co-corresponding author*

Weir JR*, **Faesen AC***, Klare K*, Basilico F, Fischböck, Pentakota S, Keller J, Petrovic A, Pesenti M, Vogt D, Wohlgemuth S, Herzog F, Musacchio A. "Insights from biochemical reconstitution into the architecture of human kinetochores" **Nature** (2016) Aug 31;537(7619):249-253
 * *Equal contribution*

Friese A, **Faesen AC**, Huis in 't Veld P, Fischböck J, Prumbaum D, Petrovic A, Raunser S, Herzog F, Musacchio A. "Molecular requirements for the inter-subunit interaction and kinetochore recruitment of SKAP and Astrin" **Nature Communications** (2016) Apr 20;7:11407

Meyer R, **Faesen AC**, Vogel K, Jeganathan S, Musacchio A, Niemeyer CM. "DNA-directed assembly of capture tools for constitutional studies of large protein complexes" **Small** (2015) Jun 10; 11(22):2669-74

Faesen AC and Musacchio A. “The (phospho) needle in the (MELT) Haystack” **Mol Cell** (2015) Mar 5; 57(5):765-6

Clerici M, Luna-Vargas MP, **Faesen AC**, Sixma TK. “The Dusp-Ubl domain of USP4 enhances its catalytic efficiency by promoting ubiquitin exchange” **Nature Communications**. (2014) Nov 18; 5:5399

Faesen AC, Luna-Vargas MPA and Sixma TK. “The role of UBL domains in Ubiquitin-Specific Proteases” **Biochemical Society Transactions** (2012) June 1; 40(3): 539-545

Faesen AC*, Luna-Vargas MPA*, Geurink PP, El Oualid F, Clerici M, Ovaa H, Sixma TK. “The differential modulation of USP activity by internal regulatory domains, interactors and seven Ub-chain types”. **Chem. Biol** (2011) Dec 23; 18(12): 1550-61

* *Equal contribution*

Faesen AC, Dirac MG, Shanmugham A, Ovaa H, Perrakis A, Sixma TK. “The auto-activation mechanism of USP7/HAUSP by its ubiquitin-like (HUBL) domain is allosterically promoted by GMPS”. **Mol Cell**. (2011) Oct 7; 44(1): 147-59

Evaluated by the faculty of F1000 as a “Very good”.

Faesen AC, Sixma TK, Everett RD. “Ubiquitin Specific Protease 7”. Handbook of Proteolytic Enzymes edited by Neil Rawlings and Guy Salvesen, volume 3 (2011)

Shanmugham A, Fish A, Luna-Vargas MPA, **Faesen AC**, El Oualid F, Sixma T.K., Ovaa H. “Non-hydrolyzable Ubiquitin-isopeptide isosteres as Deubiquitinating enzymes probes” **J. Am. Chem. Soc.** (2010) Jul 7 ;132(26) :8834-5

Evers TH, Dongen van EMWM, **Faesen AC**, Meijer EW, Merckx M. “Quantitative understanding of energy transfer between fluorescent protein domains connected via flexible peptide linkers using the worm-like chain model”. **Biochemistry**. (2006) Nov 7;45 (44): 13183-92