

Events & meetings

What	When	Where	More information
KNAW BioPhysicsNL Talks Agnese Seminara, Leonid Mirny	8 Dec 2020, 15:30-17:30	Online	You can watch the seminar and tutorial by: • Live streaming on the Youtube channel BioPhysicsNL • Via Zoom with this link. Use passcode: +=y6VU • If you would like to participate in the discussion with the speaker/the tutorial you can register here.
CHAINS	8 - 9 Dec 2020	Online	https://nwochains.nl/
Physics@Veldhoven	18 – 20 Jan 2021	Online	https://www.nwo.nl/en/meetings/physicsveldhoven
International Symposium on Computer Methods in Biomechanics and Biomedical Engineering	Deadline to organize a workshop: 15 Jan/15 Feb Meeting: 7-9 Sept 2021	Online/Bonn	https://www.cmbbe-symposium.com/2021/call-for-proposals/
Life2021	26, 27 and 28 May 2021	Online	https://nwolife.nl Keep updated on the latest news and deadlines via the Life Newsletter
International European Light Microscopy Initiative Meeting	22-25 June 2021	Noordwijkerhout	https://elmi2020.eu/

New appointments, grants, prizes, and other news.

- 5 October 2020: Kees Storm appointed new chairman of the Physics Round Table¹
- AMOLF group leader Kristina Ganzinger has been awarded this year's Pieter Langerhuizen Lambertuszoom Fonds of the Koninklijke Hollandsche Maatschappij der Wetenschappen (KHMW)²
- KNAW Early Career Award for NKI group leader Tineke Lenstra³
- ERC Starting grants for Riccardo Levato (UMCU), Ginny Fariás (UU), Jacques Bothma (Hubrecht Institute)⁴
- Koen Bastiaans wins the first Paul & Tatiana Ehrenfest physics thesis prize from the Dutch Physics Council. The Dutch Physics Council invites nominations for the 2021 Paul & Tatiana Ehrenfest thesis award. The award recognizes an outstanding Ph.D. thesis in the field of physics, defended at a Dutch university in the previous year (1 September 2020 - 1 September 2021). The prize is open to nominations in any subfield of physics, and for theoretical as well as experimental work. The winner receives € 5000 and is invited to present their research at the national Physics@Veldhoven meeting (January 2022). The deadline for nominations is 1 October 2021.⁵
- 30 Nov – 4 Dec: week of Spinoza laureate Nynke Dekker⁶

Granted projects NWO

OPEN COMPETITION

ENW KLEIN⁷

The RAD51 paralog paradox: Essential functions in DNA repair depend on how proteins move and organize within the dynamic nuclear environment

Prof. Claire Wyman (Erasmus MC)

Genetic information is coded into the structure of DNA, so maintaining its structural integrity is essential. A break in both DNA strands is dangerous. Repairing the damage requires a large group of proteins to organize themselves into repair machines within the complex environment of the cell nucleus, and in competition with other genomic activity. In order to understand how this works we will determine how individual DNA repair proteins behave in the cell nucleus, and how they organize themselves at the locations of DNA damage. This understanding could yield new ways to treat cancer and optimize CRISPR/Cas gene modification.

Caught in the act; unveiling lysosome-driven cancer cell invasion by correlative 3D live-cell electron microscopy

Dr Nalan Liv (UMCU)

Lysosomes are cell organelles that break down many kinds of biomolecules. There is a strong rise in the number of lysosomes in the spurs that invasive cancer cells extrude into their environment. How these lysosomes contribute to cancer cell invasion is poorly understood, as there is no way to follow this process with the extremely high resolution required. I will develop a new microscopy method and use it to characterize hundreds of lysosomes in cancer cells migrating in a 3D environment. My main objectives are to reveal the molecular processes underlying lysosome-driven cancer cell invasion, and to discover new points at which metastasis could be blocked.

¹ <https://www.nwo.nl/en/news/kees-storm-appointed-new-chairman-physics-round-table>

² <https://amolf.nl/news/kristina-ganzinger-awarded-by-khmw>

³ <https://www.avl.nl/nieuwsberichten/2020/tineke-lenstra-krijgt-knaw-prijs-voor-onderzoek-naar-afleren-dna/>

⁴ https://erc.europa.eu/sites/default/files/document/file/erc_2020_stg_results_all_domains.pdf

⁵ <https://www.lorentz.leidenuniv.nl/ehrenfest/>

⁶ <https://www.nwo.nl/en/news/spinoza-laureate-nynke-dekker-life-long-ambition-learn>

⁷ <https://www.nwo.nl/nieuws/vijftien-vernieuwende-onderzoeksprojecten-van-start-enw-klein>

TALENT

Vidi-2019⁸

Anisotropic and deformable microswimmers

Dr. D.J. (Daniela) Kraft (f), Leiden University

Bacteria and algae use shape changes and elasticity to direct their motion. In this project, the researchers will model their behavior by fabricating synthetic elastic microswimmers of various shapes using a 3D printer, and study how they move and interact.

Stopping protein aggregation in liquid droplets

Dr. E. (Evan) Spruijt (m), Radboud University Nijmegen

Cells must continuously keep their proteins from aggregating. Accumulation of certain aggregates is toxic and leads to diseases like Alzheimer's and Parkinson's. Liquid droplets that naturally occur in the cell may enhance protein aggregation. We will design simple model droplets to investigate this and screen drugs that can prevent aggregation.

Finding a needle in the cellular haystack

Dr. T.H. (Thom) Sharp (m), Leiden University

Recent advances in microscopy now allow us to see individual proteins within whole cells. However, cells are so densely-packed with molecules that finding the desired protein is like looking for a needle in a haystack. This proposal aims to combine different microscopy techniques to solve this problem, and in doing so answer longstanding questions in immunology, such as "how does our immune system first interact with germs?".

Rubicon⁹

Giving voices to living matter

Dr B. (Beatrice) Adelizzi: TU/e -> France, École Normale Supérieure

⁸ <https://www.nwo.nl/en/onderzoeksprogrammas/nwo-talent-programme/projects-vidi/2019>

⁹ <https://www.nwo.nl/en/researchprogrammes/toekenningen/2020>

NWO calls

OPEN COMPETITION	TALENT	Dutch Research Agenda (NWA)	KIC* 2020-2023 & Gravitation	INFRASTRUCTURE
<u>ENW-XS</u> Temporarily closed	<u>Rubicon ENW</u> 30 March 2021	<u>NWA-ORC 2020</u> 14 Jan 2021 pre-proposals	<u>Key technologies</u> 10 Nov 2020 (appropriateness check)	<u>Investment Grant NWO-Large</u> Temporarily closed
<u>ENW-M</u> Continuous application	<u>Veni 2021</u> 20 May 2021 Full proposals	<u>Support for NWA route management</u> Temporarily closed	<u>Gravitation</u> 19 Januari 2021	<u>National Roadmap for Large-Scale Research Infrastructure</u> Temporarily closed
<u>ENW-XL</u> Call will open soon, deadline 15 April 2021	<u>Vidi 2020</u> Temporarily closed	<u>NWA Science communication</u> Temporarily closed	<u>Circularity</u> 26 Jan 2021	
<u>TTW OTP</u> Continuous application until 31 Dec 2020	<u>Vici 2020</u> Temporarily closed		<u>Innovations for wind and solar energy</u> 28 Jan 2021	
	<u>Incentive Grants for Women in STEM</u> 31 December 2020		<u>Aquatic food production</u> 26 Jan 2021	
			<u>Climate-robust production systems and water management</u> 26 Jan 2021	
			<u>Demand-driven Partnerships for consortia</u> 16 Feb 2021 (appropriateness check)	
			<u>Demand-driven Partnerships for partners</u> Continuous application	
			<u>Strategic collaborations</u> Call will open soon	
<u>NWO Scientific meetings and consultations</u> Continuous application				

* KIC: Knowledge and Innovation Covenant

For questions, ideas, announcements, new appointments, grants, and other news items, please contact:

Dr. Naomi Chrispijn, secretary of the advisory committee for the Physics of Life research community

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