

VINOD SUBRAMANIAM, PH.D.

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CURRENT AFFILIATION

President and Chair of the Executive Board, Professor of Biophysics, **University of Twente**, Enschede, The Netherlands
September 2021 –

Founded in 1961, the University of Twente is a pioneer in fusing technology, science and engineering with social sciences to impact the world around us. With ~12,500 students, ~3,800 employees and a budget of ~450M Euros, we are an entrepreneurial university of technology.

Chair of the 4TU.Federation, the alliance of the four universities of technology in the Netherlands ((Delft University of Technology, Eindhoven University of Technology, University of Twente, Wageningen University & Research)
March 2022 –

Chair, national advisory committee on Diversity and Inclusion in Higher Education (DIHOO), www.dihoo.eu (EN); www.dihoo.nl (NL)
October 2020 –

The Advisory Committee Diverse and Inclusive Higher Education and Research (DIHOO) provides independent advice to the Ministry of Education, Culture and Science, as well as to the field of higher education and research. These recommendations concern the promotion of diversity and inclusion.

Council member, Advisory council for science, technology and innovation (AWTI), <http://www.awti.nl/english>, The Hague, The Netherlands
December 2022 –

The Advisory Council for Science, Technology and Innovation (AWTI) is an independent body which advises the Dutch government and parliament on matters related to science, technology and innovation. AWTI publishes between around three to five strategic [advisory reports](#) per year to the Dutch government and parliament, focusing on the interrelationship between science, technology and innovation.

PAST POSITIONS

Rector Magnificus and member of the Executive Board, Vrije Universiteit Amsterdam, Amsterdam, The Netherlands
September 2015 – August 2021

The *Rector Magnificus* (loosely equivalent to the provost) is responsible for all academic affairs, including education, research, and valorization of knowledge.

Member of the Board of the Association of Universities in the Netherlands (VSNU, now UNL), January 2020 – August 2021
Chair Education & Research Steering Group (SOO) and Vice-President VSNU, January - August 2021

Director, FOM Institute AMOLF, Amsterdam, The Netherlands
Group Leader, Nanoscale Biophysics
September 2013 – August 2015

Integral responsibility for FOM Institute AMOLF, which is one of the research institutes of the Netherlands Organisation for Scientific Research (NWO). AMOLF's mission is to initiate and perform leading fundamental physics research on novel strategically important complex molecular and materials systems, in partnership with Dutch academia and industry. Set up a new department on Designer Matter and recruited the first group members.

Scientific Director, MIRA Institute for Biomedical Technology and Technical Medicine (May 2012 – August 2013)
Professor and Chair, Nanobiophysics, University of Twente, Enschede, The Netherlands
February 2004 – August 2013

Senior Research Scientist, Advanced Science & Technology Lab, Global Enabling Science and Technology, AstraZeneca, Loughborough, UK
February 2002 – February 2004

Staff Scientist and Group Leader, Department of Molecular Biology, Max Planck Institute for Biophysical Chemistry, Göttingen, Germany
September 1999 – February 2002

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POSTDOCTORAL TRAINING

With Dr. Thomas M. Jovin, MD

Department of Molecular Biology, Max Planck Institute for Biophysical Chemistry, Göttingen, Germany

September 1996 – August 1999

Human Frontiers Science Program Postdoctoral Fellowship

EDUCATION

Ph.D. in Applied Physics, August 1996

Thesis: "Application of Time-Resolved Tryptophan Phosphorescence Spectroscopy to Protein Folding Studies" with Professor Duncan G. Steel, Physics and Professor Ari Gafni, Biological Chemistry

Master of Science [Applied Physics], December 1992

Master of Science in Engineering [Electrical Engineering], May 1992

University of Michigan, Ann Arbor, Michigan, USA

Bachelor of Science with Distinction, May 1989

School of Electrical Engineering

Cornell University, Ithaca, New York, USA

SELECTED PROFESSIONAL AWARDS & HONORS

- Elected Fellow of the Netherlands Academy of Engineering, November 2023
- Elected member of the Netherlands Academy of Technology and Innovation (AcTI), 2019
- Zukunftskolleg Lecture, University of Konstanz, 2018
- Elected member of the Royal Holland Society of Sciences and Humanities (Koninklijke Hollandsche Maatschappij der Wetenschappen), 2016
- Appointed as Senior Fellow and Guest Professor of the Zukunftskolleg, University of Konstanz, Konstanz, Germany, and Distinguished Research Fellow of the Konstanz Research School Chemical Biology, 2011
- Appointed extraordinary professor in Nanoscale Imaging, Faculty of Medical Sciences, Radboud University, Nijmegen, The Netherlands, 2011-2014
- Appointed Adjunct Professor, School of Natural Sciences, Tata Institute of Fundamental Research, Mumbai, India, 2010
- Appointed Adjunct Professor, International Center for Materials Science, Jawaharlal Nehru Center for Advanced Scientific Research, Bangalore, India, 2009-2011
- Awarded 2003 Young Fluorescence Investigator Award, Biophysical Society

ACADEMIC AWARDS & FELLOWSHIPS

- awarded Director's Fellowship, Los Alamos National Laboratory, 1999 (declined)
- Human Frontier Science Program long-term fellowship, 1997
- awarded Alexander von Humboldt Research Fellowship, 1997 (declined)
- Max Planck Society Postdoctoral Fellowship, 1996
- University of Michigan College of Engineering Distinguished Achievement Award, 1996
- University of Michigan Rackham Dissertation Grant for Research Expenses, 1995
- Biophysical Society 1995 Student Research Achievement Award for best poster presentation by a graduate student at the Annual meeting
- National Science Foundation Center for Ultrafast Optical Sciences Fellow, 1991-1994
- University of Michigan Applied Physics Program Merit Fellowship, 1989-1990
- NCR / Electrical Engineering Faculty Award of Excellence, Cornell University, 1987
- Watumull Foundation Scholarship, 1988
- Cornell University Full Tuition Merit Scholarship, 1985-1989
- Dean's List, College of Engineering, Cornell University, 1985-1989
- Hirsch Summer Scholarship for Archaeology Fieldwork, 1986
- Tau Beta Pi Engineering Honor Society; Eta Kappa Nu Electrical Engineering Honor Society; Golden Key Honor Society; Phi Kappa Phi Honor Society – all at Cornell University

RESEARCH TRACK RECORD

My research interests have focused on protein folding, misfolding, and conformational dynamics studied using a wide range of advanced biophysical probing and imaging tools, which my team often also designed, engineered and developed. We focused on three broad topics:

1. Understanding factors influencing aggregation and fibril formation of the human α -synuclein protein
2. Using nanophotonic tools to manipulate photophysics of visible fluorescent proteins
3. Developing and using advanced optical biophysical methods for imaging molecular and cellular interactions

α -synuclein aggregation: My team devoted significant effort to understand the molecular biophysics of α -synuclein aggregation, with a particular focus on oligomeric α -synuclein species and their interactions with membranes. We have also used high-resolution atomic force microscopy and nanomechanical manipulation to characterize structural characteristics and polymorphism of α -synuclein fibrils, kinetics of fibril growth, and nanomechanical properties of amyloid fibrils. Collaborating with Malte Drescher (Konstanz) and Martina Huber (Leiden), we have used EPR spectroscopy to determine the conformations of monomeric α -synuclein bound to micelles and membranes. We have further demonstrated stable lipid-induced aggregates of α -synuclein, and shown coexisting horseshoe and extended helix conformations of membrane-bound α -synuclein. Our recent focus on the interactions of α -synuclein oligomers with lipids have demonstrated specific binding to negatively charged lipids and lipids in liquid disordered phases. Using single molecule spectroscopy approaches we have determined the molecular composition of stable α -synuclein oligomers (~30 monomers/oligomer), a report highlighted on the cover of *Angewandte Chemie*. More recent work has focused on interactions of α -synuclein oligomers with membranes of compositions mimicking physiological membranes.

Nanophotonic manipulation of fluorophore photophysics: We used nanophotonic tools to understand fundamental processes in fluorescence. In collaboration with Willem Vos, we manipulated photophysical states of fluorescent proteins using photonic crystals. We have demonstrated the first direct measurement of radiative and non-radiative decay rates of exclusively the emitting states of fluorescent proteins by manipulation of the local density of photonic states. We have identified multiple spectral emitting states in fluorescent proteins at the single molecule level and correlated emission properties with chromophore nanoenvironment states. One study, highlighted on the cover of *Physical Review Letters*, demonstrated that Förster energy transfer efficiency depends on the nanophotonic environment while the energy transfer rate is unaffected, laying to rest a long-standing controversy in the literature.

Advanced Optical Biophysical Methods: We have developed hybrid microscopes and multiparameter time- and frequency-domain fluorescence lifetime imaging microscopes for fundamental protein-protein and protein/matrix studies. We have further worked on nanofabrication of biomolecules on surfaces and on nanobiotechnological tools, including dip-pen nanolithography.

Our research has been funded generously by the Netherlands Organisation for Scientific Research (NWO), Dutch funding agencies FOM and STW, national nanotechnology programs NanoNed and NanoNextNL, the European Union, and other institutions.

Before I chose to focus on creating an inspiring academic environment where others could develop themselves to their fullest potential, I had the privilege of supervising ~ 33 PhD students and 18 postdoctoral fellows. My academic publications can be found on my [ORCID](#) page. If you're interested in things like bibliometrics, you can visit my [Google Scholar](#) page with quite respectable numbers, although I'd argue that the true impact comes from educating and training students and scholars.

PROFESSIONAL SERVICE

I have had leadership roles at the University of Twente, the Vrije Universiteit Amsterdam, and at AMOLF. I have chaired and participated in several university, national and international evaluation committees, and have served FOM, NWO, ERC, the 4TU Federation and the association of Universities of the Netherlands (UNL) in various roles. Prominent recent activities include chairing the evaluation committee of the *Wetenschappelijke Raad voor het Regeringsbeleid (WRR)* (see <https://www.wrr.nl/publicaties/verslag/2023/04/12/ruimte-voor-bezinning> for the report in Dutch), chairing the evaluation committees of the Lorentz Center in Leiden (2018 and 2024), participating in the KNAW committee evaluating the Netherlands Code of Conduct for Research Integrity (2024, see <https://www.know.nl/publicaties/evaluatie-nederlandse-gedragcode-wetenschappelijke-integriteit>) and in the KNAW advisory committee on the Value of Science (2023, *Waarde van Wetenschap – Observeren, weten en meten*, see <https://www.know.nl/publicaties/waarde-van-wetenschap-observeren-weten-en-meten>).

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I have also served on the editorial boards of journals, serve as an ad hoc reviewer for a wide range of scientific journals and grant funding organizations, as institutional reviewer, and have served as external thesis evaluator nationally and internationally. I have also served on several conference organizing and program committees.

ANCILLARY FUNCTIONS – CURRENT

Member advisory board, NUFFIC, 2023-
Council member, Advisory council for science, technology and innovation (AWTI), 2022-
Chair, 4TU Federation, 2022-
Member, Palace Committee, Royal Palace Amsterdam, 2022-
Member, Supervisory Board, Centrum voor Veiligheid en Digitalisering, 2022-
Board member, ECHO Foundation Center for Diversity Policy, 2021-
Member, Scientific Advisory Board, Zukunftskolleg, University of Konstanz, Germany, 2021-
Member, Excellence Strategy Advisory Board, University of Konstanz, Germany, 2021-
Member, Twente Board, 2021-
Member, Supervisory Board, PhotonDelta, 2021-
Chair, Founders Novel-T, 2021-
Chair, Advisory Board Leiden Institute of Physics (LION)
Chair, national advisory committee on Diversity and Inclusion in Higher Education (DIHOO), 10/2020 –
Member, Supervisory Board, Het Concertgebouw N. V., Amsterdam, 6/2021 - present

RELEVANT PAST ANCILLARY FUNCTIONS

Member, KNAW evaluation committee National Code of Conduct Scientific Integrity, 2023-24;
<https://www.knaw.nl/publicaties/evaluatie-nederlandse-gedragcode-wetenschappelijke-integriteit>
Parent Member, Supervisory Board, British School of Amsterdam, 2/2020 – 2/2024
Chair, evaluation committee Wetenschappelijke Raad voor het Regeringsbeleid (WRR), 2022-23
Chair and member, Supervisory Board, Rijksakademie van beeldende kunsten, till April 2023
Member, KNAW committee “Waarde van Wetenschap” 2022-23; <https://www.knaw.nl/publicaties/waarde-van-wetenschap-observeren-weten-en-meten>
Independent Chair, Selection committee, NWO Women in Science Excel (WISE) program, 2016, 2017, 2019
Founding Chair, Platform Universitaire Natuurkunde (PUN), 2012-2013
Chairperson, FOM Working Committee Fysica van Leven (Physics of Life Processes), 2009-2013
Member, FOM Working Committee Fysica van Leven (Physics of Life Processes), 2006-2008
Member of Executive Board, NWO Chemical Sciences Workgroup “Biomolecular Chemistry”
Member, FOM/v Committee (Women in Physics), 2006 - 2015
Member of Physics Advisory Board, Lorentz Center, Leiden, 2011-2015
Cochair of Nanomedicine Theme Workshop, National Nanotechnology Initiative, September 2007; invited participant in NNI themes Functional Nanoparticles and Surfaces, and Toxicology and Risk Assessment
Program leader, Nanoscale Biomolecular Interactions in Disease in Nanomedicine theme, NanoNextNL; 2009
Chairperson working group on “Optics and Acoustics”, NWO Initiative on New Instrumentation for Healthcare
Member of the Theme Committee for NWO Initiative on New Instrumentation for Healthcare
Member of the Program Committee for the Foundation for the Fundamental Study of Matter (FOM) Program “New Physical Instrumentation for Healthcare”
Member of the Executive Board, Netherlands Association for Microscopy/Nederlandse Vereniging voor Microscopie
Chairman of the midterm evaluation committee for BSIK project BIOMADE Technology Foundation
Member, NWO Physics VIDI award jury, 2005; Member, NWO Chemistry VIDI award jury, 2008, 2009, 2010; Member NWO Nano Jury 2010; Member NWO VICI Jury 2012, 2013, 2014
Member LS1 panel for ERC Consolidator Grant 2013, 2015, 2017, 2019
Member of the Self-evaluation committee of the Donders Institute for Brain, Cognition, and Behaviour, Radboud University, Nijmegen, 2010
Member NVAO evaluation committee TUDelft/Erasmus MC Bachelor degree Nanobiology, 2012
Member NVAO evaluation committee TUDelft/Erasmus MC Masters degree Nanobiology, 2015

PUBLICATION RECORD

ORCID <https://orcid.org/0000-0001-6712-7266>; ResearcherID B-4197-2010; Scopus Author Identifier 15119629900; Google Scholar: <http://scholar.google.nl/citations?user=FT2UcaYAAAAJ&hl=nl>

Contributions to books

1. N. Zijlstra and V. Subramaniam. 2013. Structural and Compositional Information about Pre-Amyloid Oligomers. in Amyloid Fibrils and Prefibrillar Aggregates: Molecular and Biological Properties (ed D. E. Otzen), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany. doi: 10.1002/9783527654185.ch6
2. M. T. Stöckl, R. Bizzarri, and V. Subramaniam, "Studying Membrane Properties Using Fluorescence Lifetime Imaging Microscopy (FLIM)," in Fluorescent Methods to Study Biological Membranes (ed. Y. Mély and G. Duportail), Springer Ser Fluoresc 12:215-240 (2012).
3. M. T. Stöckl, B. D. van Rooijen, M. M. A. E. Claessens, and V. Subramaniam. 2011. Structural and functional insights into alpha-synuclein lipid interactions. in Lipids and Cellular Membranes in Amyloid Diseases (ed R. Jelinek), Wiley-VCH Verlag GmbH & Co. KGaA, Weinheim, Germany. doi: 10.1002/9783527634323.ch2
4. G. M. J. Segers-Nolten, M. E. van Raaij, and V. Subramaniam, "Biophysical analysis of alpha-synuclein amyloid formation and structure," in Comprehensive Biomaterials (eds. Ducheyne, Healy, Hutmacher, Grainger & Kirkpatrick), Elsevier Science (2011).
5. C. Blum and V. Subramaniam, "Spectral versatility of Fluorescent Proteins observed on the single molecule level," Fluorescent Proteins I, Springer Series on Fluorescence, Volume 11, 217-240, DOI: 10.1007/4243_2011_22 (2012).
6. J. S. Kanger, V. Subramaniam, P. H. J. Nederkoorn, and A. Ymeti, "A Fast and Sensitive Integrated Young Interferometer Biosensor," Advanced Photonic Structures for Biological and Chemical Detection, X. Fan ed., Springer, pp 265-296 (2009).
7. A. Jain, C. Blum, and V. Subramaniam, "Fluorescence lifetime spectroscopy and imaging of visible fluorescent proteins," Advances in Biomedical Engineering, P. Verdonck ed., pp 145-174 (2009).
8. V. Subramaniam, Q. Hanley, A. Clayton, and T. M. Jovin, "Photophysics of Green and Red Fluorescent Proteins: Some Implications for Quantitative Microscopy," Methods in Enzymology, 360, 178-201 (2003).
9. V. Subramaniam, D. G. Steel, and Ari Gafni, "Room temperature phosphorescence as a probe of protein folding and structure," Topics in Fluorescence, vol. 6, ed. J. Lakowicz, pp. 43-65 (2000).
10. V. Subramaniam, A. K. Kirsch, A. Jenei, and Thomas M. Jovin, "Scanning near-field optical imaging and spectroscopy in cell biology," in Emerging Tools for Cell Analysis: Advances in Optical Measurement (Ed. Gary Durack and J. Paul Robinson), pp. 271-290 (2000).

International (refereed) journals

1. Iyer, A., Sidhu, A., Subramaniam, V. 2022. How important is the N-terminal acetylation of alpha-synuclein for its function and aggregation into amyloids? Front. Neurosci. <https://doi.org/10.3389/fnins.2022.1003997>.
2. Braun, T. S., J. Stehle, S. Kacprzak, P. Carl, P. Höfer, V. Subramaniam, M. Drescher. 2021. Intracellular Protein-Lipid Interactions Studied by Rapid-Scan Electron Paramagnetic Resonance Spectroscopy. J. Phys. Chem. Lett 12, 2471-2475.
3. Jord C. Prangma, Robert Molenaar, Laura van Weeren, Daphne S. Bindels, Lindsay Haarbosch, Jente Stouthamer, Theodorus W. J. Gadella, Jr., Vinod Subramaniam, Willem L. Vos, Christian Blum. 2020. Quantitative Determination of Dark Chromophore Population Explains the Apparent Low Quantum Yield of Red Fluorescent Proteins. J. Phys. Chem. B 124, 1383-1391.
4. Abbandonato, G., Storti, B., Tonazzini, I., Stöckl, M., Subramaniam, V., Montis, C., Nifosi, R., Cecchini, M., Signore, G., Bizzarri, R. 2019. Lipid-Conjugated Rigidochromic Probe Discloses Membrane Alteration in Model Cells of Krabbe Disease. Biophys. J. 116, 477-486.
5. Sidhu, A.; Vaneyck, J.; Blum, C.; Segers-Nolten, I.; Subramaniam, V. 2018. Polymorph-specific distribution of binding sites determines thioflavin-T fluorescence intensity in α -synuclein fibrils. Amyloid 25, 189-196.

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6. Semerdzhiev, S. A., S. Lindhoud, A. Stefanovic, V. Subramaniam, P. van der Schoot, and M. M. A. E. Claessens. 2018. Hydrophobic-interaction-induced stiffening of α -synuclein fibril networks. *Phys. Rev. Lett.* 120, 208102.
7. Wasserberg, D., J. Cabanas-Danes, V. Subramaniam, J. Huskens, and P. Jonkheijm. 2018. Orthogonal supramolecular protein assembly on patterned bifunctional surfaces. *Chem Commun* 54: 1615-1618.
8. Hassink, G. C., C. C. Raiss, I. M. J. Segers-Nolten, R. J. A. van Wezel, V. Subramaniam, J. le Feber, and M. Claessens. 2018. Exogenous alpha-synuclein hinders synaptic communication in cultured cortical primary rat neurons. *PLoS One* 13(3):e0193763.
9. Goeken, K. L., R. B. M. Schasfoort, V. Subramaniam, and R. Gill. 2018. Spermine induced reversible collapse of deoxyribonucleic acid-bridged nanoparticle-based assemblies. *Nano Res* 11(1):383-396.
10. Wasserberg, D., J. Cabanas-Danes, J. Prangma, S. O'Mahony, P. A. Cazade, E. Tromp, C. Blum, D. Thompson, J. Huskens, V. Subramaniam, and P. Jonkheijm. 2017. Controlling Protein Surface Orientation by Strategic Placement of Oligo-Histidine Tags. *ACS Nano* 11(9):9068-9083.
11. Sidhu, A., I. Segers-Nolten, V. Raussens, M. M. Claessens, and V. Subramaniam. 2017. Distinct Mechanisms Determine alpha-Synuclein Fibril Morphology during Growth and Maturation. *ACS Chem Neurosci* 8(3):538-547.
12. Shekhar, S., V. Subramaniam, and J. S. Kanger. 2017. Intracellular Manipulation of Phagosomal Transport and Maturation Using Magnetic Tweezers. *Methods in molecular biology* 1519:93-112.
13. Semerdzhiev, S. A., V. V. Shvadchak, V. Subramaniam, and M. Claessens. 2017. Non-uniform self-assembly: On the anisotropic architecture of alpha-synuclein supra-fibrillar aggregates. *Sci Rep* 7(1):7699.
14. Roeters, S. J., A. Iyer, G. Pletikapic, V. Kogan, V. Subramaniam, and S. Woutersen. 2017. Evidence for Intramolecular Antiparallel Beta-Sheet Structure in Alpha-Synuclein Fibrils from a Combination of Two-Dimensional Infrared Spectroscopy and Atomic Force Microscopy. *Sci Rep* 7:41051.
15. Robotta, M., J. Cattani, J. C. Martins, V. Subramaniam, and M. Drescher. 2017. Alpha-Synuclein Disease Mutations Are Structurally Defective and Locally Affect Membrane Binding. *J Am Chem Soc* 139(12):4254-4257.
16. Kumar, P., N. Schilderink, V. Subramaniam, and M. Huber. 2017. Membrane Binding of Parkinson's Protein alpha-Synuclein: Effect of Phosphorylation at Positions 87 and 129 by the S to D Mutation Approach. *Isr. J. Chem.* 57(7-8):762-770.
17. Iyer, A., S. J. Roeters, V. Kogan, S. Woutersen, M. Claessens, and V. Subramaniam. 2017. C-Terminal Truncated alpha-Synuclein Fibrils Contain Strongly Twisted beta-Sheets. *J Am Chem Soc* 139(43):15392-15400.
18. Dominguez Pardo, J. J., J. M. Dorr, A. Iyer, R. C. Cox, S. Scheidelaar, M. C. Koorengel, V. Subramaniam, and J. A. Killian. 2017. Solubilization of lipids and lipid phases by the styrene-maleic acid copolymer. *Eur. Biophys. J.* 46(1):91-101.
19. Chaudhary, H., V. Subramaniam, and M. Claessens. 2017. Direct Visualization of Model Membrane Remodeling by alpha-Synuclein Fibrillization. *ChemPhysChem* 18(12):1620-1626.
20. Cattani, J., V. Subramaniam, and M. Drescher. 2017. Room-temperature in-cell EPR spectroscopy: alpha-Synuclein disease variants remain intrinsically disordered in the cell. *Phys Chem Chem Phys* 19(28):18147-18151.
21. Zijlstra, N., N. Schilderink, and V. Subramaniam. 2016. Fluorescence Methods for Unraveling Oligomeric Amyloid Intermediates. *Methods in molecular biology* 1345:151-169.
22. Sidhu, A., I. Segers-Nolten, and V. Subramaniam. 2016. Conformational Compatibility Is Essential for Heterologous Aggregation of alpha-Synuclein. *ACS Chem Neurosci* 7(6):719-727.
23. Raiss, C. C., T. S. Braun, I. B. Konings, H. Grabmayr, G. C. Hassink, A. Sidhu, J. le Feber, A. R. Bausch, C. Jansen, V. Subramaniam, and M. M. Claessens. 2016. Functionally different alpha-synuclein inclusions yield insight into Parkinson's disease pathology. *Sci Rep* 6:23116.
24. Mulder, H. K., C. Blum, V. Subramaniam, and J. S. Kanger. 2016. Size-selective analyte detection with a Young interferometer sensor using multiple wavelengths. *Opt Express* 24(8):8594-8619.
25. , A., N. Schilderink, M. Claessens, and V. Subramaniam. 2016. Membrane-Bound Alpha Synuclein Clusters Induce Impaired Lipid Diffusion and Increased Lipid Packing. *Biophys J* 111(11):2440-2449.

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26. Iyer, A., S. J. Roeters, N. Schilderink, B. Hommersom, R. M. Heeren, S. Woutersen, M. M. Claessens, and V. Subramaniam. 2016. The Impact of N-terminal Acetylation of alpha-Synuclein on Phospholipid Membrane Binding and Fibril Structure. *J Biol Chem* 291(40):21110-21122.
27. Chaudhary, H., A. Iyer, V. Subramaniam, and M. M. Claessens. 2016. alpha-Synuclein Oligomers Stabilize Pre-Existing Defects in Supported Bilayers and Propagate Membrane Damage in a Fractal-Like Pattern. *Langmuir* 32(45):11827-11836.
28. Brazdova, M., V. Tichy, R. Helma, P. Bazantova, A. Polaskova, A. Krejci, M. Petr, L. Navratilova, O. Ticha, K. Nejedly, M. L. Bennink, V. Subramaniam, Z. Babkova, T. Martinek, M. Lexa, and M. Adamik. 2016. p53 Specifically Binds Triplex DNA In Vitro and in Cells. *PLoS One* 11(12):e0167439.
29. Apetri, M. M., R. Harkes, V. Subramaniam, G. W. Canters, T. Schmidt, and T. J. Aartsma. 2016. Direct Observation of alpha-Synuclein Amyloid Aggregates in Endocytic Vesicles of Neuroblastoma Cells. *PLoS One* 11(4):e0153020.
30. Stefanovic, A. N., S. Lindhoud, S. A. Semerdzhiev, M. M. Claessens, and V. Subramaniam. 2015. Oligomers of Parkinson's Disease-Related alpha-Synuclein Mutants Have Similar Structures but Distinctive Membrane Permeabilization Properties. *Biochemistry* 54(20):3142-3150.
31. Stefanovic, A. N., M. M. Claessens, C. Blum, and V. Subramaniam. 2015. Alpha-synuclein amyloid oligomers act as multivalent nanoparticles to cause hemifusion in negatively charged vesicles. *Small* 11(19):2257-2262.
32. Shvadchak, V. V., M. M. Claessens, and V. Subramaniam. 2015. Fibril breaking accelerates alpha-synuclein fibrillization. *J Phys Chem B* 119(5):1912-1918.
33. Molenaar, R., J. C. Prangma, K. O. van der Werf, M. L. Bennink, C. Blum, and V. Subramaniam. 2015. Microcantilever based distance control between a probe and a surface. *Rev. Sci. Instrum.* 86(6):063706.
34. Kumar, P., I. M. Segers-Nolten, N. Schilderink, V. Subramaniam, and M. Huber. 2015. Parkinson's Protein alpha-Synuclein Binds Efficiently and with a Novel Conformation to Two Natural Membrane Mimics. *PLoS One* 10(11):e0142795.
35. Hubin, E., S. Deroo, G. K. Schierle, C. Kaminski, L. Serpell, V. Subramaniam, N. van Nuland, K. Broersen, V. Raussens, and R. Sarroukh. 2015. Two distinct beta-sheet structures in Italian-mutant amyloid-beta fibrils: a potential link to different clinical phenotypes. *Cell. Mol. Life Sci.* 72(24):4899-4913.
36. Higuera, G. A., H. Fernandes, T. W. Spitters, J. van de Peppel, N. Aufferman, R. Truckenmueller, M. Escalante, R. Stoop, J. P. van Leeuwen, J. de Boer, V. Subramaniam, M. Karperien, C. van Blitterswijk, A. van Boxtel, and L. Moroni. 2015. Supporting data of spatiotemporal proliferation of human stromal cells adjusts to nutrient availability and leads to stanniocalcin-1 expression in vitro and in vivo. *Data Brief* 5:84-94.
37. Higuera, G. A., H. Fernandes, T. W. Spitters, J. van de Peppel, N. Aufferman, R. Truckenmueller, M. Escalante, R. Stoop, J. P. van Leeuwen, J. de Boer, V. Subramaniam, M. Karperien, C. van Blitterswijk, A. van Boxtel, and L. Moroni. 2015. Spatiotemporal proliferation of human stromal cells adjusts to nutrient availability and leads to stanniocalcin-1 expression in vitro and in vivo. *Biomaterials* 61:190-202.
38. Hashemi Shabestari, M., P. Kumar, I. Segers-Nolten, M.M.A.E. Claessens, B.D. van Rooijen, V. Subramaniam and M. Huber, 2015. Three Long-Range Distance Constraints and an Approach Towards a Model for the α -Synuclein-Fibril Fold, *Appl. Magn. Reson.* 46, 369-388.
39. Goeken, K. L., V. Subramaniam, and R. Gill. 2015. Enhancing spectral shifts of plasmon-coupled noble metal nanoparticles for sensing applications. *Phys Chem Chem Phys* 17(1):422-427.
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