

CURRICULUM VITAE / PERSONAL INFORMATION (May 2018)

Family Name, First Name: Gatsogiannis, Christos

Researcher unique identifier: 0000-0002-4922-4545

Nationality: Greek

Date of Birth: 13.05.1981

EDUCATION:

2005-2009 PhD in Biology (Dr. rer. nat.), University of Mainz, Germany
Supervisor: Prof. Dr. J. Markl
Awarded *summa cum laude*

2005 Diploma Degree (equivalent to M.Sc.) in Biology, University of Mainz, Germany
Final Grade '*Sehr Gut*', Supervisor of Diploma Thesis: Prof. Dr. U. Meissner

1999 Apolytirio (Greek High School Diploma) with specialization in Chemistry,
Physics and Human Biology.
Grade *Arista* (First Degree) (19.1); (range 1 to 20, 1 =lowest mark, 20=highest
mark)

CURRENT POSITION:

2016 – now Tenured Project Group Leader, Department of Structural Biochemistry
Max Planck Institute of Molecular Physiology, Dortmund, Germany

PREVIOUS POSITIONS:

2015 Postdoctoral Researcher in the department of Prof. Dr. S. Raunser, Structural
Biochemistry, Max Planck Institute of Molecular Physiology, Dortmund,
Germany

2014 Postdoctoral Researcher in the laboratory of Prof. Dr. S. Raunser, Department
of Chemistry/Biology/Pharmacy, Freie Universität Berlin, Germany

2010-2014 Postdoctoral Researcher in the laboratory of Dr. S. Raunser, Department of
Physical Biochemistry, Max Planck Institute of Molecular Physiology, Dortmund,
Germany

2010 Postdoctoral Researcher in the laboratory of Prof. Dr. J. Markl, Department of
molecular animal Physiology, Biology, Johannes Gutenberg University Mainz

FELLOWSHIPS AND AWARDS:

2016	Project Leader DFG Research Unit 1905
2010-2012	Fellow of the Max Planck Society
2006-2009	Fellow of the Research Training Group “Immunotherapy” (DFG), University of Mainz
2005-2006	Scholarship for the promotion of projects in research and arts, University of Mainz

TEACHING ACTIVITIES:

Lecture series and tutorials in “Structural Biology” and “Chemistry of Membrane proteins” in the summer and winter semester (6 hours/semester each) in the Master’s program Chemical Biology at TU Dortmund University

Approximately 10 hours/year teaching (electron microscopy, molecular visualization) for graduate students at the MPI Dortmund (international Max Planck School in Chemical and molecular biology)

Author of the comprehensive practical guide for cryoEM structure determination with SPHIRE (~100 pages) https://ftp.gwdg.de/pub/misc/sphere/sphere_1_0/sphere_1_0_tutorial.pdf

2018	5 th International SPHIRE workshop for single particle analysis of high resolution cryoEM data, Houston, Texas, Speaker and instructor
	4 th International SPHIRE workshop for single particle analysis of high resolution cryoEM data, Dortmund, Germany, Speaker and instructor
	EMBO Practical Course: Cryo-Electron Microscopy and 3D image Processing, Heidelberg, Germany, Invited Instructor
	EMBO/Pasteur course: Integrative Structural Biology, Institute Pasteur, Paris, Invited Speaker and Trainer
	Prato workshop on single particle cryoEM and tomography, Monash University, Prato, Italy, Invited Speaker and Trainer
2017	Molecular cryoEM workshop, Caesar Institut, Bonn, Invited Speaker and Trainer
	2 nd International SPHIRE workshop for single particle analysis of high resolution cryoEM data, Houston, Texas, Speaker and instructor
	1 st international SPHIRE workshop for single particle analysis of high resolution cryoEM data, Dortmund, Germany, Speaker and instructor

ORGANISATION OF SCIENTIFIC MEETINGS:

2017-now 1st, 2nd, 4th, 5th International SPHIRE workshop for single particle analysis of high resolution cryoEM data (2x in Dortmund, 2x in Houston, each with ~35 participants) **Co-Organizer** with Prof. Dr. Pawel Penczek and Prof. Dr. Stefan Raunser

ORAL CONTRIBUTIONS TO INTERNATIONAL MEETINGS OR AT NATIONAL OR FOREIGN SCIENTIFIC INSTITUTIONS

2018 Workshop to celebrate the opening of the BECM high-resolution cryoEM center in Belgium, Brussels, **Invited Speaker**

2nd Synthetic and Medicinal Chemistry Symposium, Patras, Greece, **Invited Speaker**

3d International Symposium on Cryo-3D Image Analysis, Lake Tahoe, California, **Invited Speaker**

2017 Conference Chemical Biology of Disease, Crete, Greece, **Invited Speaker**

Foundation for Research and technology, Crete, Greece, **Invited Speaker**

2016 Gordon Conference 3D EM, Hong Kong, **Selected Poster**

Life Science Research Seminar, Shanghai Tech University, China, **Invited Speaker**

9th KUO Summer School of Electron Microscopy, Beijing, China, **Invited Speaker**

Faculty of Advanced Life Science, Hokkaido University, Sapporo, Japan, **Invited Speaker**

2015 48. annual meeting of the society for Invertebrate Pathology, Vancouver, Canada, **Invited Speaker**

2014 49. winter seminar biophysical chemistry, Klosters, Switzerland,

Lise-Meitner-Kolloquium, Berlin, Germany, **Invited Speaker**

University Duisburg-Essen, Germany, **Invited Speaker**

2nd Summer School, Osnabrück, Germany, **Invited Speaker**

2013 Gordon Conference 3D EM. New London, NH, **Selected poster**

Max-Planck-Institut für Biochemie, Martinsried, Germany, **Invited Speaker**

2009 International Congress of Respiratory science, Bonn, Germany
102. DZG Conference, Regensburg, Germany

COMMISSIONS OF TRUST:

Ad hoc reviewer for scientific journals, including among others Structure, Science

LIST OF PUBLICATIONS:

2018

1. Vinayagam D, Mager T, Apelbaum A, Bothe A, Merino F, Hofnagel O, **Gatsogiannis C**, Raunser S.
Electron cryo-microscopy structure of the canonical TRPC4 ion channel.
Elife. 2018 May 2;7. pii: e36615. doi: 10.7554/eLife.36615.
2. Kato S, Matsui T, **Gatsogiannis C**, Tanaka Y. Molluscan hemocyanin: structure, evolution, and physiology.
Biophysical Reviews 2018 Apr;10(2):191-202. doi: 10.1007/s12551-017-0349-4. Review.

2017

3. Chen M, Kato K, Kubo Y, Tanaka Y, Liu Y, Long F, Whitman WB, Lill P, **Gatsogiannis C**, Raunser S, Shimizu N, Shinoda A, Nakamura A, Tanaka I, Yao M.
Structural basis for tRNA-dependent cysteine biosynthesis.
Nature Communications 2017 Nov 15;8(1):1521. doi: 10.1038/s41467-017-01543-y.
4. Pfeifer W, Lill P, **Gatsogiannis C**, Saccà B. Hierarchical Assembly of DNA Filaments with Designer Elastic Properties.
ACS Nano. 2018 Jan 23;12(1):44-55. doi: 10.1021/acsnano.7b06012.
5. Efremov RG*, **Gatsogiannis C***, Raunser S*.
Lipid Nanodiscs as a Tool for High-Resolution Structure Determination of Membrane Proteins by Single-Particle Cryo-EM.
Methods in Enzymology 2017;594:1-30. doi: 10.1016/bs.mie.2017.05.007.

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6. Moriya T, Saur M, Stabrin M, Merino F, Voicu H, Huang Z, Penczek PA, Raunser S, **Gatsogiannis C**.*
High-resolution Single Particle Analysis from Electron Cryo-microscopy Images Using SPHIRE.
Journal of Visualized Experiments. 2017 May 16;(123). doi: 10.3791/55448.

*Corresponding author

7. Sprengel A, Lill P, Stegemann P, Bravo-Rodriguez K, Schöneweiß EC, Merdanovic M, Gudnason D, Aznauryan M, Gamrad L, Barcikowski S, Sanchez-Garcia E, Birkedal V, **Gatsogiannis C**, Ehrmann M, Saccà B.
Tailored protein encapsulation into a DNA host using geometrically organized supramolecular interactions.
Nature Communications 2017 Feb 16;8:14472. doi: 10.1038/ncomms14472.

2016

8. **Gatsogiannis C**, Merino F, Prumbaum D, Roderer D, Leidreiter, Meusch D, Raunser S. Membrane insertion of a Tc toxin in near-atomic detail. **Nature Structural Molecular Biology** 2016 Oct;23(10):884-890. doi: 10.1038/nsmb.3281.

2015

9. Poepsel S, Sprengel A, Sacca B, Kaschani F, Kaiser M, **Gatsogiannis C**, Raunser S, Clausen T, Ehrmann M. Determinants of amyloid fibril degradation by the PDZ protease HTRA1. **Nature Chemical Biology** 2015 Nov;11(11):862-9. doi: 10.1038/nchembio.1931
10. Raunser S, **Gatsogiannis C**. Deciphering the tubulin code. **Cell**. 2015 May 21;161(5):960-961. doi: 10.1016/j.cell.2015.05.004. PubMed PMID: 26000474.
11. **Gatsogiannis C***, Hofnagel O, Markl J, Raunser S*. Structure of mega-hemocyanin reveals protein origami in snails. **Structure**. 2015 Jan 6;23(1):93-103. doi: 10.1016/j.str.2014.10.013.

*Corresponding author

Selected for the cover of the January Issue of Structure.

2014

12. Meusch D*, **Gatsogiannis C***, Efremov RG*, Lang AE, Hofnagel O, Vetter IR, Aktories K, Raunser S. Mechanism of Tc toxin action revealed in molecular detail. **Nature**. 2014 Apr 3;508(7494):61-5. doi: 10.1038/nature13015.

*Equal contribution

13. Erkelenz M, Bauer DM, Meyer R, **Gatsogiannis C**, Raunser S, Saccà B, Niemeyer CM. A facile method for preparation of tailored scaffolds for DNA-origami. **Small**. 2014 Jan 15;10(1):73-7

2013

14. Sadian Y*, **Gatsogiannis C***, Patasi C, Hofnagel O, Goody RS, Farkasovský M, Raunser S. The role of Cdc42 and Gic1 in the regulation of septin filament formation and dissociation. **Elife**. 2013 Nov 28;2:e01085. doi: 10.7554/eLife.01085.

*Equal contribution

15. **Gatsogiannis C***, Lang AE*, Meusch D, Pfaumann V, Hofnagel O, Benz R, Aktories K, Raunser S.
A syringe-like injection mechanism in *Photobacterium luminescens* toxins.
Nature. 2013 Mar 28;495(7442):520-3. doi: 10.1038/nature11987.

*Equal contribution

Recommended by Faculty of 1000 (7 stars): <http://f1000.com/prime/717996666>

2012

16. Bröcker C*, Kuhlee A*, **Gatsogiannis C***, Balderhaar HJ, Hönscher C, Engelbrecht-Vandré S, Ungermann C, Raunser S.
Molecular architecture of the multisubunit homotypic fusion and vacuole protein sorting (HOPS) tethering complex.
PNAS 2012 Feb 7;109(6):1991-6. doi: 10.1073/pnas.1117797109.

*Equal contribution

Recommended by Faculty of 1000 (6 stars): <http://f1000.com/prime/13698957>

2010

17. Lieb B, Gebauer W, **Gatsogiannis C**, Depoix F, Hellmann N, Harasewych MG, Strong EE, Markl J. Molluscan mega-hemocyanin: an ancient oxygen carrier tuned by a ~550 kDa polypeptide.
Frontiers in Zoology 2010 May 13;7:14. doi: 10.1186/1742-9994-7-14.

2009

18. **Gatsogiannis C**, Markl J.
Keyhole limpet hemocyanin: 9-A CryoEM structure and molecular model of the KLH1 dodecamer reveal the interfaces and intricate topology of the 160 functional units.
Journal of Molecular Biology 2009 Jan 23;385(3):963-83. doi: 10.1016/j.jmb.2008.10.080.

2007

19. **Gatsogiannis C**, Moeller A, Depoix F, Meissner U, Markl J. Nautilus pompilius hemocyanin: 9 A cryo-EM structure and molecular model reveal the subunit pathway and the interfaces between the 70 functional units.
Journal of Molecular Biology 2007 Nov 23;374(2):465-86.

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