

DEPARTMENT OF CHEMISTRY

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Academic Qualifications

- PhD in Chemistry (2003), Chemistry Department, NKUA
- MSc in Analytical Chemistry (1998) Chemistry Department, NKUA
- BSc in Chemistry (1995), Chemistry, NKUA

Previous Appointments

2019-2023: Protein Crystallography and Biophysics Centre Scientific Coordinator, Birkbeck College, London, UK

2022 Lecturer in Organic Chemistry, Arcadia University London Centre, London UK

2021 Visiting Professor in Structural Biology, Institute of Applied Mathematics and Mechanics, Peter the Great St. Petersburg Polytechnic University, Russia

Teaching

(current): Department of Chemistry, NKUA
Instructor, Biochemistry I and Biochemistry II
(past): Birkbeck College

Instructor, *Structural Molecular Biology*.

Specialist Laboratory Research Project

Protein Crystallography

Laboratory Project Structural Molecular Biology

Practical Skills for the Biosciences

Protein Structure and Function

For Masters/PhD programmes:

Methods in Integrative Structural Biology.

Arcadia University London Centre:

Instructor, Organic Chemistry II

Peter the Great St. Petersburg Polytechnic

University:

Instructor in structural and molecular biology

Research Interests

- Structure and function of the cardiac muscle in health and disease
- Mitochondrial respiratory chain
- Host-virus interactions on HIV and SARS-CoV-2

- Applications in protein crystallography and cryo-EM
- Protein biophysics

Research Funding

- 2022-23: Kingston University kick starter grant £8,641 (co-PI)
- 2020-2025: Welcome Trust: Ref: 221543/Z/20/Z, 2020-2025. Funded for £232,273 + £65,000 from UCL (co-PI).
- 2017-2020: Subite cardiaque. Fondation 'CŒUR ET RECHERCHE' 2017. Funded for €150,000 (co-PI)
- i-Next Discovery/Instruct-Eric, multiple infrastructure access applications.

Resent Research Publications

([full pubmed list here](#))

1. Discovery of a non-canonical prototype long-chain monoacylglycerol lipase through a structure-based endogenous reaction intermediate complex, N. Pinotsis, A. Krüger, N. Tomas, SD Chatziefthymiou, C. Litz, S. Arnold Mortensen, M. Daffé, H. Marrakchi, G. Antranikian, M. Wilmanns. **Nature Communications** *in press*
2. A small molecule PI3K α activator in cardioprotection and neuroregeneration GQ Gong, et al **Nature**. 2023 Jun;618(7963):159-168. doi: 10.1038/s41586-023-05972-2.
3. Two Ligand-Binding Sites on SARS-CoV-2 Non-Structural Protein 1 Revealed by Fragment-Based X-ray Screening. Ma S, Damfo S, Lou J, Pinotsis N, Bowler MW, Haider S, Kozielski F. **International Journal of Molecular Sciences**. 2022 Oct 18;23(20):12448. doi: 10.3390/ijms232012448
4. Evasion of cGAS and TRIM5 defines pandemic HIV. Zuliani-Alvarez L, Govasli ML, Rasaiyaah J, Monit C, Perry SO, Sumner RP, McAlpine-Scott S, Dickson C, Rifat Faysal KM,

Hilditch L, Miles RJ, Bibollet-Ruche F, Hahn BH, Boecking T, Pinotsis N, James LC, Jacques DA, Towers GJ. **Nature Microbiology**. 2022 Nov;7(11):1762-1776. doi: 10.1038/s41564-022-01247-0

5. An intrinsic temporal order of c-JUN N-terminal phosphorylation regulates its activity by orchestrating co-factor recruitment.

Waudby CA, Alvarez-Teijeiro S, Josue Ruiz E, Suppinger S, Pinotsis N, Brown PR, Behrens A, Christodoulou J, Mylona A. **Nature Communications**. 2022 Oct 17;13(1):6133. doi: 10.1038/s41467-022-33866-w.

6. Characterization of the membrane interactions of phospholipase C γ reveals key features of the active enzyme. Le Huray KIP, Bunney TD, Pinotsis N, Kalli AC, Katan M.

Science Advances. 2022 Jun 24;8(25):eabp9688. doi: 10.1126/sciadv.abp9688.

7. The role of the M-band myomesin proteins in muscle integrity and cardiac disease.

Lamber EP, Guicheney P, Pinotsis N. **Journal of Biomedical Science**. 2022; 29(1):18. doi: 10.1186/s12929-022-00801-6.

8. Calcium modulates the domain flexibility and function of an α -actinin similar to the ancestral α -actinin. Pinotsis N, Zielinska K, Babuta M, Arolas JL, Kostan J, Khan MB, Schreiner C, Salmazo A, Ciccarelli L, Puchinger M, Gkougkoulia EA, Ribeiro EA Jr, Marlovits TC, Bhattacharya A, Djinovic-Carugo K. **Proc Natl Acad Sci U S A**. 2020;117(36):22101-22112. doi: 10.1073/pnas.1917269117.

9. Rcf2 revealed in cryo-EM structures of hypoxic isoforms of mature mitochondrial III-IV supercomplexes. Hartley AM, Meunier B, Pinotsis N, Maréchal A. **Proc Natl Acad Sci U S A**. 2020;117(17):9329-9337. doi: 10.1073/pnas.1920612117.

10. Structure of yeast cytochrome c oxidase in a supercomplex with cytochrome bc₁. Hartley AM, Lukyanova N, Zhang Y, Cabrera-Orefice A, Arnold S, Meunier B, Pinotsis N, Maréchal A. **Nature Structural & Molecular Biology**. 2019;78-83. doi: 10.1038/s41594-018-0172-z.