



UNIVERSITY OF NAPLES "FEDERICO II"

Department of Chemical Sciences

Ph.D. School in Chemical Sciences



**PhD Course in the frame of the arCHIMede project
of the Department of Chemical Sciences**

DNA BEYOND THE DOUBLE-HELIX

A journey from structure to functions and supramolecular applications of non-canonical nucleic acids

Dr. Jean Louis Mergny

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Venue: Department Conference room

Date: May 27th, 2024, h. 11-13

Course #1: Introducing DNA (and RNA) non canonical nucleic acid structures. G-quadruplexes and beyond; Methods to characterize them in vitro.

Date: May 28th, 2024, h. 11-13

Course #2: Introducing paleogenomics. DNA lives! What to do with ancient DNA?

Date: May 29th, 2024, h. 11-13

Course #3: DNA: not only the secret of life - A tribute to Ned Seeman. Biotechnology and Nanotechnology applications

Date: May 31th, 2024, h. 14,30-16,30

Course #4: The role of a scientific editor. Now that you have gathered novel results, how are you going to publish them?



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Dr. Jean Louis Mergny

Scientific interests: Nucleic Acid structures, their interactions with drugs for the development of antiviral, anti-microbial, anti-parasitic or anti-cancer agents; Genome analyses.

CURRENT POSITION

2022+ Co-founder of the Engineering for Health (E4H) interdisciplinary center at IP Paris.

2021+ Head of the Biology Department of Institut Polytechnique de Paris.

2012+ Inserm Directeur de Recherche (DR2 then DR1 now DRCE)

FORMER EXPERIENCES

2015-2018 Director of IECB research institute in Bordeaux. www.iecb.u-bordeaux.fr

2011-2018 Director of ARNA laboratory INSERM – CNRS – Univ. of Bordeaux

2013-2018 Director of CNRS UMS3033 - INSERM US01 – IECB

2016-2017 Deputy Director of SIRIC BRIO (Bordeaux Cancer initiative).

2006-2009 Deputy Director, Muséum Nat. Hist. Naturelle, Paris (Dir. C. Giovannangeli)

1992-1993 Post-doctoral fellow, Basel, CH (Prof. Walter Gehring), Antisense oligos in *Drosophila*

DIPLOMA

1999 Habilitation to conduct research (HDR, Paris 6 University) Nov 26, 1999.

1991 PhD, Pharmacology (Paris 6 University) Dec 23, 1991 (Pr. Claude Hélène)

1986 Ranked 1st (Biology) at Ulm and St Cloud (now Lyon) Ecoles Normales Supérieures.

HONOURS / AWARDS

2019+ Academia Europaea member (www.ae-info.org)

2019+ Vice-President & Founding member of the G4 society (<https://www.g4-society.org>)

2016-2022 Key foreign scientist, Symbit project. Institute of Biophysics, Brno, Czech Republic.

2018+ Invited Professor: Nanjing University, P.R. China.

2017 Mitacs Award / Outstanding Innovation awarded for a visiting PhD student (C. Miron)

2010 Guest Professor, Chinese Academy of Sciences, (Changchun, China).

2009 "Chaire d'Accueil" in Bordeaux. Aquitaine Regional Council.

2002 "Therapeutical research" INSERM Award.

2001 "Maurice Nicloux" Award SFBBM (2001).

2000 "Labbey" Award from the French Academy of Sciences.

ORGANISATION OF CONFERENCES

Conference Chair and Organizer: 5th, 6th & 8th International Meetings on Quadruplex Nucleic Acids.

EDITORIAL ACTIVITIES

Editor: 2006-2023 Biochimie, Elsevier (Impact factor 2022 = 3.9), 2,200 submissions handled.

Guest Editor for special issues in Biochimie, Methods, Journal of Nucleic Acids

Faculty Opinion: 2011+: F1000 Faculty member. <https://facultyopinions.com/prime>

Editorial boards: J. Mol. Recognition, Curr. Bioact Comp., Curr. Med. Chem., Int. Rev. Biophys. Chem.

Expertise: DFG, Royal Swedish Acad. Sci, Czech Acad. Sci., Dutch funding agency, HCERES, ERC, ESF, Cancer Res. UK, CEFIPRA, "Tenure track" for Prof. in UK, US, Austria.

SCIENTIFIC OUTPUT

342 articles, reviews or book chapters and editorials, 20 patents, 2 algorithms (G4-Hunter; G4-Killer) & 12 structures in the PDB (11 on quadruplexes 5I2V, 2LPW, 2KM3, 2JWQ, 6FTU, 6SUU, 6XCL, 6T51, 6T2G, 7OQT, 7ALU) which can be found at <http://g4.x3dna.org> and one on a peptide mimic: 5N14). 9 articles have been recommended by Faculty of 1000; 5 are currently "Highly cited" (Top 1%) according to Web of Science. >300 of these articles currently appear in PubMed; >320 in the Web of Science Core Collection. >21,000 citations and h-index = 78 according to Clarivate Analytics (Web of Science Core collection). >28,000 citations¹ and h-index = 91 according to Google Scholar.