

Personal details

Genre / Gender	Female
Name and first name:	CHIERICI Sabine
Country	France

Current position

Function

Associate Professor / Université Grenoble Alpes from 1999

French public organisation(s)

Code RNSR / RNSR code	Organisme / Organisation	Laboratoire / Laboratory	Code unite / Unit code	Code postal / Postcode	Ville / Town
200711915A	UGA/CNRS	DCM	UMR 5250	38058	GRENOBLE

Other activities (Current activities)

Head of the Master Chemistry for Life Sciences
Member of the executive board of Training Department of Chemistry & Biology
Member of the scientific committee of GREEN (GRenoble Excellence in Neurodegeneration)
Member of the advisory board of ICMG (Grenoble Institute of Molecular Chemistry)
Member of the seminar committee of DCM (Department of Molecular Chemistry)
Ad hoc referee for international journals
Member of thesis jury (2022, C. Chieffo/University of Lyon; 2022, M. Brouillard/University of Bordeaux; 2023, O. Firstova/University of Lille)
Supervisor of 6 Master students, 2 PhD student, 1 postdoctoral student, and 1 PhD student in exchange (from 2015)

Previous positions

Start date	End date	Town	Organisation	Function
September 1998	August 1999	Orléans / Genève	OM Pharma compagny, Geneva / Institute of Analytic and Organic Chemistry, Univ. Orléans	Post-doctoral fellow
September 1997	August 1998	Montreal	University of Montreal, Canada / Department of Organic Chemistry	Post-doctoral fellow
September 1996	August 1997	Lyon	University Claude Bernard, Lyon	Teaching Assitant fellow
October 1993	July 1997	Lyon	University Claude Bernard, Lyon / Laboratory of Organic Chemistry	PhD student

Career interruption(s)

Part-time work (80%) from 2006
One-year parental leave from September 2011 to August 2012

Education

1997: PhD In Glycochemistry at University of Lyon (France)
1993: Master's degree in Organic Chemistry at University of Lyon (France)

Scientific productions

Grants, fellowships, ...

- ✓ **2023 January** Co-PI of a grant allocated by Labex ARCANE in collaboration with Dr M. Peuchmaur of Department of Molecular Pharmacology UMR CNRS/UGA 5063, Grenoble – Synthesis of Rhodamine B and BODIPY-peptides to monitor Tau fibrillation by fluorescence polarization
- ✓ **2022 January** Grant for Erasmus student's scholarship (6 months) allocated by Graduate school EUR CBS – A new in-vitro assay using fluorescence anisotropy to screen for potential inhibitors against tau-derived AcPHF6 peptide fibrillation

- ✓ **2020 September** Grant for Assistant Engineer support (1 year) allocated by Labex ARCANE in collaboration with Dr H. Nawabi and Dr S. Belin of Grenoble Institute Neuroscience, INSERM U1216/UGA, Grenoble – Peptides mimicking DCLK2 to promote axonal regeneration

- ✓ **2018 September** Partner of a Grant allocated by Croatian Science Foundation to Dr I. Piantanida of Laboratory for Study of interactions of Biomacromolecules, Ruđer Bošković Institute, Zagreb – Multichromophore probes for amyloid detection

- ✓ **2017 September** Partner of a grant allocated by SATT Linksium to Dr M. Moulin-Sallanon of ‘Laboratoire des Radiopharmaceutiques Biocliniques’, INSERM U1039/UGA, Grenoble – Development of tools to detect the oligomeric toxic forms of tau in human brain

- ✓ **2018 January** Grant for Master’s scholarship (6 months) allocated by CDP IDEX NeuroCog – Synthesis and characterization of tau oligomers from tau repeat domains fragments

- ✓ **2018 January** Partner of PHC BRANCUSI 2018 (PROJET N° 38375YG) in collaboration with Dr B. Furdui of Faculty of Sciences, Galati – Design, Synthesis and biological evaluation of multitarget-directed molecules against AD

- ✓ **2017 October** Grant for PhD’s exchange (2 months) allocated by Campus France in collaboration with Dr I. Piantanida of Ruđer Bošković Institute, Zagreb – Study of cyanine dyes as probes of amyloid fibers formation

- ✓ **2017 September** Grant for Postdoctoral fellow (2 year) allocated by IRS-Labex ARCANE in collaboration with Dr H. Nawabi and Dr S. Belin of Grenoble Institut Neuroscience, INSERM U1216/UGA, Grenoble – Peptides mimicking DCLK2 to promote axonal regeneration

Publications

E. Boukherrouba, C. Larosa, K.-A. Nguyen, J. Caburet, L. Lunven, H. Bonnet, A. Fortuné, A. Boumendjel, B. Boucherle, S. Chierici, M. Peuchmaur, *Eur J Med Chem* **2022**, 231, 114139, Exploring the structure-activity relationship of benzylidene-2,3-dihydro-1H-inden-1-one compared to benzofuran-3(2H)-one derivatives as inhibitors of tau amyloid fibers.

I. Baussanne, O. Firstova, A. Botezatu Dediu, C. Larosa, B. Furdui, I. O. Ghinea, A. Thomas, S. Chierici, R. Dinica, M. Demeunyncka, *Bioorg Chem* **2021**, 116, 105390. Interest of novel N-alkylpyridinium-indolizine hybrids in the field of Alzheimer’s disease: Synthesis, characterization and evaluation of antioxidant activity, cholinesterase inhibition, and amyloid fibrillation interference.

T. Smidlehner, H. Bonnet, S. Chierici, I. Piantanida, *Bioorganic Chemistry* **2020**, 104196. Fluorescently-labelled amyloid paired helical filaments (PHF) in monitoring its fibrillation kinetics.

S. Lisi, E. Fiore, S. Scarano, E. Pascale, Y. Boehman, F. Ducong, S. Chierici, M. Minunni, E. Peyrin, C. Ravelet, *Analytica Chimica Acta* **2018**, 1038, 173-181. Non-SELEX isolation of DNA aptamers for the homogeneous-phase fluorescence anisotropy sensing of tau Proteins.

J. Pansieri, M. A. Halim, C. Vendrely, M. Dumoulin, F. Legrand, M. Moulin Sallanon, S. Chierici, S. Denti, X. Dagany, P. Dugourd, C. Marquette, R. Antoine, V. Forge, *Chem. Sci.*, **2018**, 9, 2791-2796. Mass and charge distributions of amyloid fibers involved in neurodegenerative diseases: mapping heterogeneity and polymorphism.

A. Virgone-Carlotta, E. Dufour, S. Bacot, M. Ahmadi, M. Cornou, L. Moni, J. Garcia, S. Chierici, D. Garin, D. Marti-Batlle, P. Perret, J. F. Gherzi-Egea, M. Moulin Sallanon, D. Fagret, C. Ghezzi, *J. Label Compd. Radiopharm* **2016**, 59, 517-530. New diketopiperazines as vectors for peptide protection and brain delivery: Synthesis and biological evaluation.

- L. Lunven, H. Bonnet, S. Yahiaoui, W. Yi, L. Da Costa, M. Peuchmaur, A. Boumendjel, S. Chierici*, ACS Chem. Neurosci. **2016**, 7, 995–1003. Disruption of Fibers from the Tau Model AcPHF6 by Naturally Occurring Aurones and Synthetic Analogues.
- L. Eriau-Peyrard, C. Coiffier, Patrice Bordat, D. Bégué, S. Chierici, S. Pinet, I. Gosse, I. Baraille, R. Brown, Phys. Chem. Chem. Phys. **2015**, 17, 4168-4174. Selective, direct detection of acetylcholine in PBS solution, with self-assembled fluorescent nano-particles: experiment and modelling.
- D. Garin, A. Virgone-Carlotta, B. Gözel, F. Oukhatar, P. Perret, D. Marti-Battle, M. Touret, P. Millet, M. Dubois-Dauphin, D. Meyronet, N. Streichenberger, F. M. Laferla, M. Demeunynck, S. Chierici*, M. Moulin Sallanon*, C. Ghezzi, J. Neurochem. **2014**, 132, 609-618. COB231 targets amyloid plaques in post-mortem human brain tissue and in an Alzheimer mouse model.
- E. Dufour, L. Moni, L. Bonnat, S. Chierici*, J. Garcia, Org. Biomol. Chem. **2014**, 12, 4964-4974. 'Clickable' 2,5-diketopiperazines as scaffolds for ligation of biomolecules: use in A β inhibitory's assembly.
- L. Peyrard, M. L. Dumartin, S. Chierici, S. Pinet, G. Jonusauskas, P. Meyrand, I. Gosse, J. Org. Chem. **2012**, 77, 7023-7027. Development of Functionalized Cyclotrimeratrylene Analogues: Introduction of Withdrawing and π -Conjugated Groups.
- L. Peyrard, S. Chierici, S. Pinet, P. Batat, G. Jonusauskas, N. Pinaud, P. Meyrand, I. Gosse, Org. Biomol. Chem. **2011**, 9, 8489-8494. C3-triiodocyclotrimeratrylene as a key intermediate to fluorescent probes: application to selective choline recognition.
- D. Garin, F. Oukhatar A. B. Mahon, A. C. Try, M. Dubois-Dauphin, F. M. Laferla, M. Demeunynck, M. Moulin Sallanon, S. Chierici*, Bioorganic and Medicinal Chemistry Letters **2011**, 21, 2203-2206. Proflavine derivatives as fluorescent imaging agents of amyloid deposits.
- M. Ouberai, K. Brannstrom, M. Vestling, A. Olofsson, P. Dumy, S. Chierici*, J. Garcia*, Organic and Biomolecular chemistry **2011**, 9, 1140-1147. Clicked tacrine conjugates as acetylcholinesterase and β -amyloid directed compounds.
- M. Ouberai, P. Dumy, S. Chierici*, J. Garcia*, Bioconjugate Chemistry **2009**, 20, 2123-2132. Synthesis and Biological Evaluation of Clicked Curcumin and Clicked KLVFFA Conjugates as Inhibitors of β -Amyloid Fibril Formation.
- G.T. Dolphin, S. Chierici, M. Ouberai M, P. Dumy, J. Garcia, ChemBiochem **2008**, 9, 952-963. Anti-amyloidogenic Activity towards Alzheimer's β -amyloid Fibril Formation by A Multimeric Acridine Conjugate in vitro.
- W. Zeghida, J. Debray, S. Chierici, Pascal Dumy, M. Demeunynck, Journal of Organic Chemistry **2008**, 6, 2473-2475. Concise synthesis of polycyclic fused 2-amino-4(3H)-quinazolinones from simple (hetero)aromatic amines. published in SYNFACTS issue 06/08
- S. Grigalevicius, S. Chierici, O. Renaudet, R. Lo-Man, E. Dériaud, C. Leclerc, P. Dumy, Bioconjugate Chemistry **2005**, 16, 1149-1159. Chemoselective Assembly and Immunological Evaluation of Multiepitopic Glycoconjugates Bearing Clustered Tn antigen as Synthetic Anticancer Vaccine.
- S. Chierici, M. Figuet, A. Dettori, P. Dumy, C. R. Chimie **2005**, 8, 875-880. Thiazolidines to lock cis Xaa-Pro amide bond: new synthetic approach.
- S. Chierici, M. Jourdan, M. Figuet, P. Dumy, Organic Biomolecular Chemistry **2004**, 2, 2437-2441. A case study of 2,2-dimethyl thiazolidine as locked cis proline amide bond: synthesis, NMR and molecular modeling studies of a β -conotoxin EVIA peptide analog.
- S. Chierici, O. Renaudet, S. Grigalevicius, R. Lo-Man, C. Leclerc, P. Dumy, COFrRoCA 2004, Actes du Colloque Franco-Roumain de Chimie Appliquée, 3rd, Bacau, Romania, Sept. 22-26, **2004**, 31-34. Molecular engineering of tumoral antigens on a cyclopeptide framework.
- S. Bonnin, F. Besson, M. Gelhausen, S. Chierici, B. Roux, FEBS Letters **1999**, 456(3), 361-364. A FTIR spectroscopy

evidence of the interactions between wheat germ agglutinin and N-acetylglucosamine residues.

L. Berthelot, V. Rosilo, M.L. Costa, S. Chierici, G. Albrecht, P. Boullanger, A. Baszkin, *Colloids and Surfaces, B: Biointerfaces* **1998**, 11(5), 239-248. Behavior of amphiphilic neoglycolipids at the air/solution interface. Interaction with a specific lectin.

M. Gelhausen, F. Besson, S. Chierici, D. Lafont, P. Boullanger, B. Roux, *Colloids and Surfaces, B: Biointerfaces* **1998**, 10(6), 395-404. Lectin recognition of liposomes containing neoglycolipids. Influence of their lipidic anchor and spacer length.

S. Chierici, P. Boullanger, L. Marron-Brignone, R. M. Morelis, P. R. Coulet, *Chemistry and Physics of Lipids* **1997**, 87(2), 91-101. Synthesis and interfacial behavior of a gemini neoglycolipid.

D. Lafont, P. Boullanger, S. Chierici, M. Gelhausen, B. Roux, *New Journal of Chemistry* **1996**, 20(10), 1093-1101. Cholesteryl oligoethyleneglycols as D-glucosamine anchors into phospholipid bilayers.

Valorisation

1 patent: WO/2018/078140, D. Fagret, M. Moulin, C. Ghezzi, P. Perret, **S. Chierici**, Anti-Tau nanobodies.

Patent under discussion with INSERM transfert for the best peptide derived from DCLK2