

## Nadège Lubin-Germain

Professor

University of Cergy-Pontoise

### Education

2004            Habilitation à Diriger des Recherches, University of Cergy-Pontoise  
1993            PhD, University of Paris-Sud (Orsay)  
1989            Master, University of Paris-Sud (Orsay)

### Work Experience

2010-            Professor , University of Cergy-Pontoise  
2002-2003:    Délégation CNRS  
1994-2010     Maître de Conférences, University of Cergy-Pontoise  
                  Laboratoire de synthèse organique sélective et de chimie Organique  
1993-1994 :   Attachée Temporaire d'Enseignement et de Recherche, University of Cergy-Pontoise  
1992-93        Postdoctoral position, Institut für Biotechnologie 2, Forschungszentrum Jülich  
                  (Germany).  
1989-92        PhD, University of Paris-Sud (Orsay)

### Responsibilities

2020-            Member of the Conseil d'Établissement CY Cergy-Paris University  
2014-15        Member of the scientific council UCP  
2014-            Coordination of 6 Cursus of Master in Ingeniery, Faculty of Sciences, UCP  
2014-16        Head of the department of chemistry, UCP  
2012-15        Member of the CNU, national council of the Universities, section 32  
2011-14        Directrice adjointe du département de chimie  
2008-10        Member of the scientific council UCP

### Research activities

2010 , In charge of the Glycochemistry group ( 3 MCF, 1 ATER, 4 doctorants)

Keywords : glycochemistry, C-nucleosides, C-glycosides, glycoconjugates, methodologies

#### Bibliography

- h-index = 17
- 48 publications
- 4 proceedings
- Chap. book : 3
- Invited conferences: 10

#### Chapters of Book

CHAP1- Aqueous cycloaddition using glyco-organic substrats. Stereo- and physico-chemical aspects.

A. Lubineau, J. Augé, H. Bienaymé, N. Lubin and Y. Queneau

Cycloadditions reactions in carbohydrate chemistry, *ACS Symposium Sr.* Washington D.C.  
**1992, 494, 147**

- CHAP2 Alkynyl, Alkenyl and Aryl Indium Reagents, Jacques Augé, Nadège Lubin-Germain and Jacques Uziel  
 Indium: Properties, Technological Applications and Health Issues  
 Editors: Hsiao G. Woo and Huang Tsai Choi  
**Series:** Chemical Engineering Methods and Technology Materials Science and Technologies, Nova publishers **ISBN:** 978-1-62257-696-8
- CHAP3 Lubineau's green synthon, Jacques Augé and Nadège Lubin-Germain Carbohydrate Chemistry **2014**, 40, 11-30  
 "Carbohydrate Chemistry, chemical and biological approaches" vol 40, **2014**  
 Editors : A. Pilar Rauter, Y. Queneau  
 RSC publisher

### Publications

- P1- Aqueous cycloaddition using glyco-organic substrats. Facial selectivity in Diels-Alder reactions of a chiral diene derived from D-glyceraldehyde. A. Lubineau, J. Augé and N. Lubin, *J. Chem. Soc., Perkin Trans 1* **1991**, 3011
- P2- Hetero Diels-Alder reaction in water. Synthesis of  $\alpha$ -hydroxy- $\gamma$ -lactones. A. Lubineau, J. Augé and N. Lubin, *Tetrahedron Letters* **1991**, 32, 7529-7530
- P3- New strategy in the synthesis of 3-deoxy-D-manno-octulosonic acid (KDO), 2-deoxy-KDO and thioglycosides of KDO. A. Lubineau, J. Augé and N. Lubin, *Tetrahedron* **1993**, 49, 4639-4650.
- P4- Aqueous hetero Diels-Alder reactions : The carbonyl case. A. Lubineau, J. Augé, E. Grand and N. Lubin, *Tetrahedron* **1994**, 50 (34), 10265-10276.
- P5- New synthetic applications of sialic acid Aldolase, a usefull catalyst for KDO synthesis. Relation between substrate conformation and enzyme stereoselectivity. Kragl, U., Gösde, A., Lubin, N. and Augé, C., *J. Chem. Soc., Perkin Trans 1*, **1994**, 119
- P6- Acceleration in water of the Baylis-Hillman reaction. A. Lubineau, J. Augé and N. Lubin, *Tetrahedron Letters* **1994**, 43 (35), 7947-7948.
- P7- Hetero Diels-Alder reaction with aqueous glyoxylic acid. J. Augé and N. Lubin-Germain, *J. Chem. Educ.* **1998**, 1285-1287.
- P8- Glycosylhydrazides, a new class of sugar surfactant. Preparation and amphiphilic properties of 1-glycosyl-2-acylhydrazines. J. Augé, N. Lubin-Germain, *J. Carbohydr. Chem.* **2000**, 19, (3), 379-392.
- P9- Indium-catalyzed allylation of carbonyl compounds with the Mn/TMSCl system. J. Augé, N. Lubin-Germain and A. Thiaw-Woaye, *Tetrahedron Letters* **1999**, 40, 9245-9247.
- P10- Catalysis by lithium cation : lithium trifluoromethanesulfonate as a substitute to lithium perchlorate in cycloadditions. J. Augé, R. Gil, S. Kalsey and N. Lubin-Germain, *Synlett*, **2000**, 6, 877-879.
- P11- Indium-mediated carbonyl alkynylation. J. Augé, N. Lubin-Germain and Latifa Seghrouchni, *Tetrahedron Letters*, **2002**, 43, 5255-5256.
- P12- Indium-mediated formation of propargyl ketones from aldehydes or acyl chlorides. J. Augé, N. Lubin-Germain and Latifa Seghrouchni, *Tetrahedron Letters* **2003**, 44, 819-821.
- P13- An alternative procedure in the Takai reaction using chromium (III) chloride hexahydrate as a convenient source of chromium (II). J. Augé, V. Boucard, R. Gil, N. Lubin-Germain, J. Picard and J. Uziel *Synth. Comm.* **2003**, 33, 3727-3734
- P14- Indium-catalyzed Barbier allylation reaction. J. Augé, N. Lubin-Germain, Sylvain Marque and Latifa Seghrouchni, *J. Organomet. Chem.* **2003**, 679, 79-83.
- P15- C-glycosylated Phenylalanine synthesis by palladium-catalyzed cross-coupling reactions. Boucard, V., Larrieu, K., Lubin-Germain, N., Uziel, J., Augé, J. *Synlett*, **2003**, 12, 1833.
- P16- Indium mediated alkynylation in C-glycosides synthesis. Picard, J., Lubin-Germain, N., Uziel, J., Augé, J., *Synthesis*, **2006**, 979.

- P17- Gram scale preparation of a C-glucopyranosyl phenylalanine derivative *via* a Negishi cross-coupling reaction. Ousmer, M., Lubin-Germain, N., Uziel, J., Augé, J., *Eur. J. Org. Chem.*, **2006**, 1216.
- P18- Sugar building-blocks for solid-phase glycopeptides synthesis. A. Le Chevalier, N. Lubin-Germain, J. Uziel, M. Chelli, A-M Papini, *J. Pept Sci.* **2006**, 12, 111.
- P19- Recent advances of Indium-promoted organic reactions. Augé, J.; Lubin-Germain, N., Uziel, J. *Synthesis*, **2007**, 12, 1739.
- P20- Ferrier-type alkynylation reaction mediated by indium. N. Lubin-Germain, A. Hallonet, F. Huguenot, S. Palmier *Org. Lett.*; 2007; 9 (18); 3679-3682.
- P21- Direct C-glycosylation by indium-mediated alkynylation on Sugar Anomeric Position. Lubin-Germain, N.; Baltaze, J.-P.; Coste, A.; Hallonet, A.; Laureano, H.; Legrave, G.; Uziel, J.; Augé, J. *Org. Lett.*, **2008**, 10 (5), 725-728.
- P22- Huisgen Cycloaddition Reaction of C-Alkynyl Ribosides under Micellar Catalysis: Synthesis of Ribavirin Analogues. R. Aït Youcef, M. Dos Santos, S. Roussel, J.-P. Baltaze, N. Lubin-Germain, J. Uziel *J. Org. Chem.* **2009**, 74, 4318–4323.
- P23 Post-translationally modified peptides efficiently mimicking neo-antigens: a challenge for theragnostics of autoimmune diseases. Nuti F., Peroni E., Real-Fernández F., Bonache M. A., Le Chevalier-Isaad A., Chelli M., Lubin-Germain N., Uziel J., Rovero P., Lolli F., Papini A.M. *Biopolymers: Peptide Science*, **2010**, 94, 791.
- P24 Synthesis of alkynes and alkynyl iodides bearing a protected amino alcohol moiety as functionalized amino acids precursors. Ayed, C., Picard, J., Lubin-Germain, N., Uziel, J., Augé, J. *Sci China Ser B-Chem* **2010**, 53, 1921-1926
- P25 Synthesis of glycopeptides potential inhibitors of human rhinovirus 3C Protease. Danalev, D., Lubin-Germain, N., Uziel, J., Augé, J. *J. Pept Sci.*, **2010**, 16, 56-56.
- P26 Indium-mediated alkynylation of sugars: synthesis of C-glycosyl compounds bearing a protected amino alcohol moiety. Ayed, C., Palmier, S., Lubin-Germain, N., Uziel, J., Augé, *Carbohydr. Res.* **2010**, 345, 2566–2570.
- P27 Titan based hybrid organic-inorganic gels comprising carbohydrate moiety. D. Danalev, J. Augé, P. Griesmar, N. Lubin-Germain, S. Serfaty, J. Uziel *Phosphorus, Sulfur, and Silicon and the Related Elements*, **2011**, 186, 2216.
- P28 Straightforward glycosylation of alcohols and amino acids mediated by ionic liquid. O. Monasson, G. Sizun-Thomé, N. Lubin-Germain, J. Uziel, J. Augé, *Carbohydr. Res.*, **2012**, 352, 202.
- P29 Ribavirin-Cell Penetrating Peptides Hybrid Molecules a Promising Alternative as Inhibitors of Multienzyme Systems Raykova, R; Hristova, B ; Yotova, L ; Lubin-Germain N; Uziel J; Danalev D. *J. Peptide Sci.*, **2012**, 18, S145-S145.
- P30 New highlights on degradation process of verdigris from easel paintings. C. Santoro, K. Zarkout, A.-S. Le Hô, F. Mirambet, D.r Gourier, L. Binet, S. Pagès-Camagna, S. Reguer, S. Mirabaud, Y. Le Du, P. Griesmar, N. Lubin-Germain, M. Menu *Applied Physics A*, **2014**. 114, 637-645.
- P31 Copper(II) SBA-15: a reusable catalyst for azide-alkyne cycloaddition . I. Jalia, F. Gallier, N. Brodie-Linder, J. Uziel, J. Augé, N. Lubin-Germain *J. Mol Cat A : Chem.* **2014**, 393, 56–61.
- P32 1,4-Disubstituted-[1,2,3]triazolyl-Containing Analogues of MT-II: Design, Synthesis, Conformational Analysis, and Biological Activity. C. Testa, M. Scrima, M. Grimaldi, A. M. D'Ursi, M. L. Dirain, N. Lubin-Germain A. Singh, C. Haskell-Luevano, M. Chorev, P. Rovero, A.M. Papini *J. Med. Chem.*, **2014**, 57 (22), 9424–9434.
- P33 Blanching of paint and varnish layers in easel paintings: contribution to the understanding of the alteration. A. Genty-Vincent, M. Eveno, W. Nowik, G. Bastian, E. Ravaud, I. Cabillic, J. Uziel, N. Lubin-Germain, M. Menu *Appl. Phys. A*, **2015**, 121, 779–788.
- P34 Functionalization of 2H 1,2,3-Triazole C-Nucleoside Template via N2 Selective Arylation. A.B. Lopes, P. Wagner, R. O. M. Alves de Souza, N. Lubin Germain, J. Uziel, J.-J. Bourguignon, M. Schmitt, L. S. M. Miranda *J. Org. Chem.* **2016**, 81, 4540–4549.

- P35 Access to complex C2-branched glycoconjugates via palladium-catalyzed aminocarbonylation reaction of 2-iodoglycals. A. Bordessa · A. Ferry · N. Lubin-Germain *J. Org. Chem.* **2016.**, *81*, 12459-1265.
- P36 Synthesis of C-ribosyl-1,2,3-triazolyl carboxamides. C. Solarte· M. Dos Santos, S. Gonzalez, L. S. M. Miranda, R. Guillot, A. Ferry, F. Gallier, J. Uziel, N. Lubin-Germain *Synthesis*, **2017**, DOI: 10.1055/s-0036-1588409.
- P37 Ribavirin 2'-Me-C-nucleoside analogues synthesis , F. Cosson, A. Faroux, J.-P. Baltaze, J. Farjon, R. Guillot, J. Uziel, N. Lubin-Germain *Beilstein JOC* **2017**, *13*, 755-761..
- P38 Synthesis of C-pyrimidyl nucleosides starting from alkynyl ribofuranosides, G. Legrave, R. Ait Youcef, D. Afonso, A. Ferry, J. Uziel, N. Lubin-Germain , *Carbohydr Res.* **2018** *15*;462:50-55
- P39 Lipase-Catalyzed Amidation of Carboxylic acid and amines, Daniela Manova, Florian Gallier, Lotfi Tak-Tak, Lyubov Yotova, Nadège Lubin-Germain *Tetrahedron Lett* **2018**, *59*, 2086-2090.
- P40 Studies of membranotropic and fusogenic activity of two putative HCV fusion peptides S. Gonzalez, F. Gallier, S. Kellouche, F. Carreiras, E. Novellino, A. Carotenuto, G. Chassaing, P. Rovero, J. Uziel, N. Lubin-Germain *BBA - Biomembranes* **1861** (**2019**) 50–61
- P41 "CO" as a convenient carbon bridge to build complex C2-branched glycosides using a palladium-catalyzed carbonylative Suzuki-Miyaura reaction from 2-iodoglycals. M. de Robichon, A. Bordessa, N. Lubin-Germain, A. Ferry *J. Org. Chem.* **2019**, *84*, 3328-3339.
- P42 Photochemical Origin of the Darkening of Copper Acetate and Resinate Pigments in Historical Paintings M.Alter, L. Binet, N.Touati, N.Lubin-Germain, A.S.Le Hô, F. Mirambet, D.Gourier *Inorg. Chem.* **2019**, <https://doi.org/10.1021/acs.inorgchem.9b02007>
- P43 Access to C-aryl/alkenylglycosides by directed Pd-catalyzed C–H functionalisation of the anomeric position in glycal-type substrates M. de Robichon, A. Bordessa, M. Malinowski, J. Uziel, N. Lubin-Germain, A.Ferry *Chem. Commun.*, **2019**, *55*, 11806--11808 DOI: 10.1039/c9cc05993h
- P44 Evaluation of the potential of a new ribavirin analog impairing the dissemination of ovarian cancer cells A. Wambecke, C. Laurent-Issartel, J. Leroy-Dudal, F. Giffard, F. Cosson, N.Lubin-Germain, J. Uziel, S. Kellouche, F. Carreiras *Plos One* **2019**, *14* (12), e02225860 O. doi.org/10.1371/journal.pone.02225860
- P45 Synthesis and antitumor activities investigation of a C-nucleoside analogue of Ribavirin N. Sabat, E. Migianu-Griffoni, T. Tudela, M. Lecouvey, S.Kellouche, F. Carreiras, F. Gallier, J. Uziel, N. Lubin-Germain *Eur J. Med. Chem.* **2020**, *108*, 112009 doi.org/10.1016/j.ejmech.2019.112009
- P46 Mild Palladium-Catalyzed Cyanation of Unprotected 2-Iodoglycals in Aqueous Media as Versatile Tool to Access Diverse C2-Glycoanalogues Malinowski, M., Van Tran, T., De Robichon, M., Lubin-Germain, N. , Ferry, A. *Adv. Synth. Catal.* **2020**, *362*, 1 –7  
DOI: 10.1002/adsc.201901583
- P47 Direct Synthesis of Mesoporous Organosilica and Proof-of-Concept Applications in Lysozyme Adsorption and Supported Catalysis Osta, O. Bombled, M. Partouche, D., Gallier, F. , Lubin-Germain, N., Brodie-Linder, N., Alba-Simionesco, C. *ACS Omega*, **2020**  
<https://dx.doi.org/10.1021/acsomega.0c01996>
- P48 Glycosamine derivatives through metal-catalyzed C-N bond formation on protected and protecting-group free 2-iodoglycals M. Malinowski, C. Banoun, M. de Robichon, N. Lubin-Germain, A. Ferry *Eur. J. Org. Chem.* **2021**

## Proceedings

- Proc1. Sugar building-blocks for solid-phase glycopeptide synthesis. A. Le Chevalier, N. Lubin-Germain, J. Uziel, M. Chelli, F. Lolli, P. Rovero, A.M.Papini, *Peptides 2006*. K. Rolka, P. Rekowski, J. Silberring (Eds.), Kenes International, Geneva, Switzerland (**2007**), 680-681.
- Poc2. C. Testa, S. Carganico, F. Nuti, M. Scrima, A.M. D'ursi, M. L. Dirain, N. Lubin-Germain, C. Haskell Luevano, M.I Chorev, P. Rovero, A. M. Papini. Stabilization of beta-turn conformation in melanocortin like peptide by click side chain-to-side chain cyclization. In: *Tales of Peptides*. M. Lebl, M. Meldal, K. J. Jensen, T. Høeg-Jensen European Peptide Society (Eds.), Prompt Scientific Publishing (**2010**), p 14-15. ISBN:0-9715560-5-9.
- Proc3. L. Soter de Mariz e Miranda, R. O. M. Alves de Souza, J. Uziel, N. Lubin-Germain Studies towards new Ribavirin Nucleosides analogs, *Blucher Chemistry Proceedings, São Paulo*, **2011**, 1,137, (14th BMOS Brazilian Meeting on Organic Synthesis) DOI: 10.5151/chempro-14bmos-R0137-1
- Proc4. Alexandra Basilio Lopes, Nelilma Correia Romeiro, Amilcar Tanuri, Nadège Lubin- Germain, Rodrigo Octávio M. A. de Souza, Leandro S.M. Miranda  $\beta$ -C-ribosyl-1,2,3-triazole analogues of guanosine as potencial antiviral agents against dengue and hepatitis C virus , *Blucher Chemistry Proceedings, Campos do Jordao*, **2013**, DOI: 10.5151/chempro-15bmos-BMOS2013\_2013831113746 (15th BMOS Brazilian Meeting on Organic Synthesis)