

Guillaume BASTIAT, Ph.D



CURRENT POSITION

- Senior associate professor / accreditation for research supervision (HDR) at the Pharmacy Department of the Faculty of Health of the University of Angers, France
- Member of the Translational Micro and Nanomedicines laboratory (MINT, INSERM U1066 / CNRS 6021), University of Angers, France

WEBSITES

<https://mint.univ-angers.fr/en/index.html>

<https://www.univ-angers.fr/fr/acces-directs/facultes-et-instituts/faculte-de-sante.html>

<https://www.univ-angers.fr/fr/acces-directs/facultes-et-instituts/faculte-de-sante/formations/departement-pharmacie.html>

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Google Scholar: https://scholar.google.com/citations?view_op=list_works&hl=fr&user=zIRO06IAAAAJ

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PERSONAL

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EDUCATION / AFFILIATIONS / POSTS

1999 - 2002. Contractual PhD student with complementary teaching activity, University of Pau and Pays de l'Adour, France

2003. PhD in Physical Chemistry, University of Pau and Pays de l'Adour, France

2004 - 2006. Post-doctoral fellow - Centre for Self-Assembled Chemical Structures, University of Montreal, QC, Canada

2006 - 2008. Post-doctoral fellow - Canada Research Chair in Drug Controlled Release, University of Montreal, QC, Canada

2008 - 2009. Post-doctoral fellow - IVP laboratory - INSERM U646, University of Angers, France

2009 - . Associate Professor, University of Angers, France.

2010 - 2023. Elected member of the Management Council of the Faculty of Health of the University of Angers, France

2017 - . Elected member of the MINT Laboratory Council (INSERM U1066 / CNRS 6021), University of Angers, France

2019 - . Appointed member of the board of the Federative Research Structure of Cellular Interactions and Therapeutic Applications (SFR ICAT 4208) of the University of Angers, France

2019 - . Senior associate professor, University of Angers, France

2020. Accreditation for research supervision (HDR), University of Angers, France

2023 - Nominated member at the Research Council and the Academic Council of the University of Angers, France

RESEARCH ACTIVITIES

- **Nanomedicines** for controlled and/or targeted drug delivery
- Design **smart hydrogel of nanomedicine**
- **Intravenous administration** to cross the blood brain barrier
- Local administration as **glioblastoma post-resection implants**
- Local administration for the **prevention of intimal hyperplasia**

PARTICIPATION IN RESEARCH PROJECTS-FUNDING

Project coordinator and/or PI supported by national and international funding agencies. (i) local actions (Scientific Council of the University of Angers, Agence Loire Métropole, Regional Scientific Dynamics, SATT West valorization), (ii) calls for projects from charity associations (Ligue contre le Cancer and ARC Foundation), (iii) international actions (ECOS Sud MINCyT with Argentina, Mitacs Globalink with Canada and the 8th Joint Call of EuroNanoMed3 with Belgium and Canada, COST IMUNO-model and SRATAGEM), and (iv) industry (Ethypharm, Farmea, GlioCure)

TEACHING ACTIVITIES

2002 - 2003. Temporary Teaching and Research Associate, University of Pau and Pays de l'Adour, France

2009 - Associate Professor, University of Angers, France
Biostatistics, Biophysics, Nanomedicine

PRIZES-HONORS

2010. STN/RSD doktoranci umed prize for the best communication at Pro Medicina 6th International, 48th Polish Conference of Students and Junior Doctors, Łódź, Poland

2011. Debio Pharm Group prize for the best poster communication at 26èmes journées scientifiques du GTRV, Brussels, Belgium

2015. Cover of European Journal of Nanomedicine, volume 7, issue 2

2016. France Life Imaging prize for the best communication at 3rd Annual Meeting SFNano, Paris, France

2017. Fondation Université de Bordeaux/Chaire Solvay prize for the best poster at 4th Annual Meeting SFNano, Bordeaux, France.

2017. Doctoral and research supervision bonus

2019. Advancement to the grade of Maître de conférences hors classe by the Academic Council of the University of Angers.

2022. Doctoral and research supervision bonus

CONFERENCE ORGANIZATION

- 30th session of the Journées d'Etudes des Polymères (Member of the steering committee)
- 2nd Translational Nanomedicine International Meeting (Member of the steering and scientific committees; Member of the jury of the poster prize);
- 2nd day of biomedical research Angers/Tours (Member of the jury of the poster prize);
- Journées Jeunes Chercheurs de la Fondation ARC (Member of the jury of the Hélène Starck prize)
- NanoMed2021: 4th NanoMed EMJMD's workshop (Member of the steering committee).

PROFESSIONAL AFFILIATIONS

- Controlled Release Society
- French Society of Nanomedicines
- French Group of Rheology
- BeNeLux & France Controlled Release Society local chapter.

PROFESSIONAL ACTIVITIES

Editorial activities:

Referee for ACS Nano, Journal of Controlled Release, European Journal of Pharmaceutics and Biopharmaceutics, International Journal of Nanomedicine, International Journal of Pharmaceutics, Scientific Reports, Pharmaceutical Research, AAPS PharmSciTech, etc.

Research Evaluation Activities:

National and international expertise activities: appointed by the Thematic Evaluation Committee 09 of the Fonds Québécois de la Recherche sur la Nature et les Technologies (Canada), by the Comité Initiatives Science Innovation Territoire Economie en Bourgogne-Franche-Comté (France), by the Evaluation Committee CE06 of the Agence Nationale de Recherche (France), by the Evaluation Committee of the Direction de la Recherche, de l'Enseignement Supérieur et du Transfert de Technologie de la Région Nouvelle-Aquitaine (France), and by the Interdisciplinary Thematic Institute "Matériaux hiérarchiques et fonctionnels pour la santé, l'environnement et l'énergie" (France).

Member of Committees:

Member of the National Commission 4 of the ARC Foundation (France) (2013 - 2018), representative of the University of Angers in the executive and steering committees of the Regional Scientific Dynamics of the SPEED network: Smart sustainable PolymERS and procEss Development (2016 - 2021), co-responsible for the research program for pharmacy students intending to pursue an academic career (2015 -), co-responsible for the research project calls of the Federative Research Structure Cellular Interactions and Therapeutic Applications (SFR ICAT 4208) of the University of Angers (2017 -), expert and member of the accreditation and certification committee of the competitiveness hub Atlanpole Biotherapies.

PATENTS

- 1 - Bastiat G., Leroux J.-C. *Pharmaceutical composition with gelling properties containing a tyrosine derivate*. International patent number **WO/2009/095485**
- 2 - Pitorre M., Bastiat G., Béjaud J., Benoit J.-P. *Nanocapsules comprising modified nucleobases and/or nucleosides, hydrogels and oleogels comprising them and uses thereof*. International patent number **WO/2019/048649A1**
- 3 - Calvignac B, Gimel JC, Roger E, Rolley N, Lefebvre G, Bastiat G, Fouchet F, Matha K. *Continuous method for nano-emulsification by concentration phase inversion*. International patent number **WO/2021/014109A1**

PUBLICATIONS (GENERAL)

55 papers peer-reviewed journals, 2 chapters in books (or series), 3 patents. Participation in > 60 National and International conferences/workshops;

Invited speaker in 13 National and International scientific meetings/workshops/conferences.

METRICS

Citations 1758 (127 since 2019) and h-index 25 (Web of Science™ - January 4th, 2024)

10 REPRESENTATIVE PUBLICATIONS

- 1 - Bastiat G., Plourde F., Motulsky A., Furtos A., Dumont Y., Quirion R., Fuhrmann G., Leroux J.-C. *Tyrosine-based rivastigmine-loaded organogels in the treatment of Alzheimer's disease*. **Biomaterials** 2010;31(23):6031-6038 [IF=14]
- 2 - Bastiat G.*, Pritz C.O., Roider C., Fouchet F., Lignières E., Jesacher A., Glueckert R., Ritsch-Marte M., Schrott-Fischer A., Saulnier P., Benoit J.-P. *A new tool to ensure the fluorescent dye labeling stability of nanocarriers: A real challenge for fluorescence imaging*. **Journal of Controlled Release** 2013;170(3):334-342 [IF=10.8]
- 3 - Moysan E., González-Fernández Y., Lautram N., Bejaud J., Bastiat G.*, Benoit J.-P. *An innovative hydrogel of gemcitabine-loaded lipid nanocapsules: when the drug is a key player of the nanomedicine structure*. **Soft Matter** 2014;10:1767-1777 [IF=3.4]
- 4 - Wauthoz N., Bastiat G.*, Moysan E., Cieślak A., Kondo K., Zandecki M., Moal V., Rousselet M.-C., Hureau J., Benoit J.-P. *Safe lipid nanocapsule-based gel technology to target lymph nodes and combat mediastinal metastases from an orthotopic non-small-cell lung cancer model in SCID-CB17 mice*. **Nanomedicine: Nanotechnology, Biology and Medicine** 2015;11(5):1237-1245 [IF=5.4]
- 5 - Sasso M.S., Lollo G., Pitorre M., Solito S., Pinton L., Valpione S., Bastiat G., Mandruzzato S., Bronte V., Marigo I., Benoit J.-P. *Low dose gemcitabine-loaded lipid nanocapsules target monocytic myeloid-derived suppressor cells and potentiate cancer immunotherapy*. **Biomaterials** 2016;96:47-62 [IF=14]
- 6 - Bastiancich C., Bianco J., Vanvarenberg K., Ucakar B., Joudiou N., Gallez B., Bastiat G., Lagarce F., Pr at V., Danhier F. *Injectable nanomedicine hydrogel for local chemotherapy of glioblastoma after surgical resection*. **Journal of Controlled Release** 2017;264:45-54 [IF=10.8]
- 7 - Gazaille C, Sicot M, Akiki M, Lautram N, Dupont A, Saulnier P, Eyer J, Bastiat G. *Characterization of Biological Material Adsorption to the Surface of Nanoparticles without a Prior Separation Step: a Case Study of Glioblastoma-Targeting Peptide and Lipid Nanocapsules*. **Pharmaceutical Research** 2021;38(4):681-691 [IF=3.7]
- 8 - Pitorre M, Gazaille C, Pham LTT, Frankova K, B jaud J, Lautram N, Riou J, Perrot R, Genevi ve F, Moal V, Benoit JP, Bastiat G. *Polymer-free hydrogel made of lipid nanocapsules, as a local drug delivery platform*. **Materials Science and Engineering: C Materials for Biological Applications** 2021;126:112188 [IF=7.9]
- 9 - Tehrani SF, Rabanel JM, Legeay S, Cayon J, Riou J, Saulnier P, Marleau S, Roullin VG, Hildgen P, Bastiat G. *Tailoring PEGylated nanoparticle surface modulates inflammatory response in vascular endothelial cells*. **European Journal of Pharmaceutics and Biopharmaceutics** 2022;174:155-166 [IF=4.9]
- 10 - Gazaille C, Bozzato E, Madadian-Bozorg N, Mellinger A, Sicot M, Farooq U, Saulnier P, Eyer J, Pr at V, Bertrand N, Bastiat G*. *Glioblastoma-targeted, local and sustained drug delivery system based on an unconventional lipid nanocapsule hydrogel*. **Biomaterials Advances** 2023;153:213549 [IF=7.9]

MENTORING - MAJOR CONTRIBUTIONS TO THE EARLY CAREERS OF RESEARCHERS

- 15 Master Theses (and 2 are currently running)
- 7 PhDs (and 1 is currently running)
- 4 Post-Doc Researchers (and 2 are currently running)