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FUNCTIONS

2007-	**Research Director** at Inria Saclay
1998-2007	**Professor** of Mathematics, University Paris Descartes
1991-1998	**Maître de Conférences** of Mathematics, University Paris Descartes

ACTIVITIES

2016-	**Professor (part time)** at Ecole Polytechnique
2016-	**Head** of the joint Inria-CMAP team Xpop
2015-	**Adjunct Professor**, University of Florida
2015-	**Adjunct Professor**, University of Buffalo
2013-	**Member** of the Comité de Sélection des Programmes (CSP), IHP
2011-	**Head** of Scientific Advisory Board, Lixoft
2009-	**Member** of the High Council for Biotechnology
2007-2011	**Director** of the GdR (CNRS Research Group) "Statistics and Health"
2008-2011	**Leader** of the MONOLIX software development project
2003-2006	**Chargé de Mission** at the Ministry of Research.

EDUCATION

1997	**Habilitation à Diriger des Recherches**, University Paris Sud (Orsay)
1991	**PhD in Mathematics**, University Paris Sud

SUPERVISION

1997-	**PhD**: 11 students

AWARDS

2015	Innovation award, International Society of Pharmacometrics (IsoP)
2015	Prix de l'Innovation, Académie des Sciences - Inria - Dassault Systèmes

PUBLICATIONS (SINCE 2011)

1. Lavielle M., Aarons L. “What do we mean by identifiability in mixed-effects models?”, Journal of Pharmacokinetics and Pharmacodynamics, vol 43, 111-122, 2016.
2. Biliouris K., Lavielle M., Trame M. “MatVPC: A User-friendly Matlab-based Tool for the Simulation and Evaluation of Systems Pharmacology Models.”, CPT: Pharmacometrics & Systems Pharmacology, 2015.
3. Iung B., Tubiana S., Alla F., Lavielle M. “Interpretation of time changes in the incidence of infective endocarditis”, The Lancet, 2015.
4. Mazzocco P., Barthélémy C., Kaloshi G., Lavielle M., et al. “Prediction of response to temozolomide in low-grade glioma patients based on tumor size dynamics and genetic characteristics”, CPT: Pharmacometrics & Systems Pharmacology, 2015.
5. Swat M.J., Moodie S., Wimalaratne S., Kristensen N.R., Lavielle M., et al. “Pharmacometrics Markup Language (PharmML): Opening New Perspectives for Model Exchange in Drug Development”, CPT: Pharmacometrics & Systems Pharmacology, 2015.
6. Jeleazcov C., Lavielle M., Schüttler J., Ihmsen H. “Direct and indirect pharmacodynamic response modeling of systolic blood pressure with MONOLIX. A study in adult volunteers during experimental anesthesia with propofol”, British Journal of Anaesthesia, 2015.
7. Mbogning C., Bleakley K., Lavielle M. “Joint modeling of longitudinal and repeated time-to-event data with maximum likelihood estimation via the SAEM algorithm”, Journal of Statistical Computation and Simulation, vol. 85, n. 8, 1512--1528, 2015.
8. Lavielle M., “*Mixed Effects Models for the Population Approach. Models, Tasks, Methods & Tools”*, Chapman & Hall/CRC Biostatistics Series, 2014.
9. Mbogning C., Bleakley K., Lavielle M.”Joint modeling of longitudinal and repeated time-to-event data with maximum likelihood estimation via the SAEM algorithm”, Journal of Statistical Computation and Simulation, 2014, published online.
10. Mentré F., Chenel M., Comets E., Grevel J., Hooker A., Karlsson M.O., Lavielle M. and Gueorguieva I., “Current Use and Developments Needed for Optimal Design in Pharmacometrics: A Study Performed Among DDMoRe’s European Federation of Pharmaceutical Industries and Associations Members”, CPT: Pharmacometrics & Systems Pharmacology, vol. 2, 2013, published online.
11. Delattre M. and Lavielle M., “Coupling the SAEM algorithm and the extended Kalman filter for maximum likelihood estimation in mixed-effects diffusion models”, Statistics and Its Interface, vol. 6, 519--532, 2013.
12. Lavielle M., “Rôle et limites de la statistique dans l’évaluation des risques sanitaires liés aux OGM”, Statistique et Société, vol. 1, 2013.

13. Faure M.C., Sulpice J.C., Delattre M., Lavielle M., Prigent M., Cuif M.H., Melchior C., Tschirhart E., Nüsse O. and Dupré-Crochet S., "The recruitment of p47phox and Rac2G12V at the phagosome is transient and phosphatidylserine-dependent", Biology of the Cell, vol. 105, 1-18, 2013.

14. Bleakley K. and Lavielle M., "Effective strategies for segmenting data into coherent subsets", HAL, 2012.

15. Delattre M., Poursat M.A. and Lavielle M., "BIC selection procedures in mixed effects models", Inria technical report, N. 7948, 2012.

16. Mbogning C., Bleakley K. and Lavielle M., "Between-subject and within-subject model mixtures for classifying HIV treatment response", Progress in Applied Mathematics, vol. 4, 148-166, 2012.

17. Grevel J. and Lavielle M., "A safe bet?", European Biopharmaceutical Review, 2012.

18. Delattre M. and Lavielle M., "Maximum Likelihood Estimation in Discrete Mixed Hidden Markov Models", Computational Statistics and Data Analysis, vol.56, 2073–2085 2012.

19. Delattre M., Savic R., Miller K., Karlsson M. and Lavielle M., "Analysis of exposure–response of CI-945 in patients with epilepsy: application of novel Mixed Hidden Markov Modelling Methodology", Journal of Pharmacokinetics and Pharmacodynamics, vol. 39, pp. 263-271, 2012.

20. Keller M. and Lavielle M., "Random threshold for linear model selection, revisited", Statistics and Its Interface, vol. 5, pp. 263-275, 2012.

21. Lavielle M. and Bleakley K., "Automatic data binning for improved visual diagnosis of pharmacometric models", Journal of Pharmacokinetics and Pharmacodynamics, vol. 38, pp. 861-871, 2011.

22. Dubois A., Lavielle M., Gsteiger S., Pigeolet E. and Mentré F., "Model-Based Analyses of Bioequivalence Crossover Trials Using the SAEM Algorithm", Statistics in Medicine, vol. 30, pp. 2582-600, 2011.

23. Lavielle M., Samson A., Fermin A.K. and Mentré F., "Maximum likelihood estimation of long term HIV dynamic models and antiviral response", Biometrics, vol. 67, pp. 250-259, 2011.

24. Chan P., Jacqmin P., Lavielle M., McFadyen L. and Weatherley B., "The Use of the SAEM Algorithm in MONOLIX Software for Estimation of Population Pharmacokinetic-Pharmacodynamic-Viral Dynamics Parameters of Maraviroc in Asymptomatic HIV Subjects", Journal of Pharmacokinetics and Pharmacodynamics, vol. 38, pp. 41-61, 2011.

25. Savic R., Mentré F. and Lavielle M., "Implementation and Evaluation of an SAEM algorithm for longitudinal ordered categorical data with an illustration in pharmacometrics", The AAPS Journal, vol. 13, n. 1, pp; 44-53, 2011.

OTHER

1. *mlxR: a R package for the simulation and visualization of longitudinal data*
   http://simulx.webpopix.org

2. *Introduction to the population approach*
   http://model.webpopix.org/movies/PopulationApproach.swf

3. *Introduction to PK modeling*
   http://model.webpopix.org/movies/PKmodelling.swf

4. *WikiPopix*: *Mixed Effects for the Population Approach. Models, Tasks, Methods & Tools*
   https://wiki.inria.fr/popix