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April 16th 1972

Researcher in Biostatistics

EDUCATION

- 2008** HDR (ability to conduct research), **Biostatistics**
2000-2001 Post Doctorat (Biostatistics), USC University, U.S.A.
2000 Ph.D. in **Biostatistics**, Université Victor Segalen, Bordeaux2, France
1996 Master Epidemiology & Biostatistics, Université Victor Segalen, Bordeaux2, France
1994 B.Sc. Applied Mathematics and Social Sciences, Université Victor Segalen, Bordeaux2, France

RESEARCH: Director of Research at the *INSERM institute since 2014*
(Researcher since 2001)

Developments:

- **Prognostic survival models and validation**
- **Joint Models** for recurrent events and death
- **Validation of surrogate endpoints in clinical trials**
- **Methods for analysing meta-analyses**
- **Recurrences of cancer** (follicular lymphomas, breast cancer, colorectal)
- **Models for geographical clustered data**
- **R package "FRAILTYPACK" for correlated survival data**

Main Applications:

- **Cancer relapses, meta-analysis in cancer, tumor size evolution**
- **Aluminum** in drinking water and **Alzheimer's disease**
- **Air Pollution and mortality**

National and international collaborations

Referee for several journals (ex : Biostatistics, Biometrics, LIDA, Statistics in Medicine ...)

Expert / consultant in Biostatistics

TEACHING: *Biostatistics and Epidemiology since 2000*

Masters in biostatistics and epidemiology
Medical school
Engineering school of Biology
Intensive courses

SUPERVISING

2001 –now Each year, supervisor of PhD, masters or bachelors students

GRANTS and fellowships

1996-1999: Ministère de la Recherche et du travail, Ph.D. Grant.

1999-2000: Fondation pour la Recherche Médicale, end of Ph.D. Grant.

2000: Badoit Award.
2004: Agence Française de Sécurité Sanitaire de l'Environnement
2005: Danone
2006: EGIDE Price, China exchange
2008 and 2010 and 2016: Ligue contre le cancer
2011-2014: INCA
2013-2015: IRESP
2016-2019: REGION AQUITAINE
2017-2018: ARC
2017: Ligue contre le cancer de Gironde

SELECTED PUBLICATIONS

1. Krol, A. Mauguen, Y. Mazroui, A. Laurent, S. Michiels, and V. Rondeau. Tutorial in joint models and prediction : a statistical software for correlated longitudinal outcomes, recurrent events and a terminal outcome. In press, 2015.
2. V. Rondeau, E. Cornet, P. Moreau, and X. Troussard. Prediction of patients with multiple myeloma eligible for second- or third-line treatment in france. *Annals of Hematology*, 2016.
3. Krol, A. Mauguen, Y. Mazroui, A. Laurent, S. Michiels, and V. Rondeau. Tutorial in joint models and prediction : a statistical software for correlated longitudinal outcomes, recurrent events and a terminal outcome. In press, 2015.
4. L. Ferrer, V. Rondeau, J. Dignam, T. Pickles, H. Jacqmin-Gadda, and Proust-Lima Joint modelling of longitudinal and multi-state processes : application to clinical progressions in prostate cancer. *Statistics in Medicine*, 2016.
5. D. Seyoum, Y. Getachew, V. Rondeau, D. Yewhalaw, L. Duchateau, A. Rosas-Aguirre, and N. Speybroeck. Identification of different patterns of malaria disease due to plasmodium falciparum and plasmodium vivax in ethiopian children : a prospective cohort study. *Malaria Journal*, 15(208), 2016.
6. Krol, L. Ferrer, JP. Pignon, C. Proust-Lima, M. Ducreux, O. Bouch_e, S. Michiels, and V. Rondeau. Joint model for left-censored longitudinal data, recurrent events and terminal event : Predictive abilities of tumor burden for cancer evolution with application to the ffcd 2000-05 trial. *Biometrics*, pages n/a{n/a}, 2016.
7. D. Commenges, H. Jacqmin-Gadda, A. Amadou, P. Joly, B. Lique_t, C. Proust-Lima, V. Rondeau, and R. Thi_ebaut. *Dynamical Biostatistical Models*, volume 86. CRC Press, 2015.
8. D. Commenges, H. Jacqmin-Gadda, A. Amadou, P. Joly, B. Lique_t, C. Proust-Lima, V. Rondeau, and R. Thiebaut. *Mod_eles biostatistiques pour l'_epid_emiologie*. De Boeck, 2015.
9. T. Emura, M. Nakatochi, K. Murotani, and V. Rondeau. A joint frailty-copula model between tumour progression and death for meta-analysis. *Statistical Methods in Medical Research*, 2015.
10. Y. Mazroui, A. Mauguen, S. Mathoulin-Pélissier, G. Macgrogan, V. Brouste, and V. Rondeau. Time-varying regression coefficients in a multivariate frailty model: application to several types of breast cancer recurrences and death. *LIDA*, 1-25, 2015.
11. A. Mauguen, B. Rachet, S. Mathoulin-Pélissier, G. Lawrence, S. Siesling, G. MacGrogan, and V. Rondeau. Validation of death prediction after relapses using joint models: application on french, english and dutch patients with a breast cancer. *BMC medical research methodology* 15 (1), 27, 2015.
12. C. Pradeau, V. Rondeau, E. Leveque, P. Guerniaud, E. Tentillier, M. Thicoipé, and P. Brochard. Short-term effects of ozone and particulate air pollution on out-of-hospital cardiac arrests. *American Journal of Emergency Medicine*, 23 (3) : 367-372, March 2015.
13. F. Rotolo, V. Rondeau, C. Legrand. Incorporation of nested frailties into multistate models with an application to a multicenter lung cancer clinical trial. *Statistics in Medicine*, in press 2015.
14. V. Rondeau, A. Laurent, A. Mauguen, C. Berr, and C. Helmer. Dynamic prediction models for clustered and interval-censored outcomes: investigating the intra-couple correlation in the risk of dementia. *Statistical Methods in Medical Research*, in revision 2015.
15. B. Amadeo, C. Robert, V. Rondeau, M.A. Mounouchy, L. Cordeau, X. Birembaux, E. Citadelle, J. Gotin, M. Gouranton, G. Marcin, L. David, and C. Raheison. Impact of close-proximity and background air pollution on lung function of elementary school-children in French West Indies: an observational study. *BMC Public Health*, 15:45, 2015.
16. A Bélot, V. Rondeau, L. Remontet, and R. Giorgi. A joint frailty model to estimate the recurrence event process and the disease-specific mortality process without needing the cause of death. *Statistics in Medicine*. *Statistics in Medicine*, 33 (18): 3147:66, 2014.
17. A. Dousseau, P. Perez, M. Puntous, J. Calderon, M. Jeanne, C. Germain, B. Rozec, V. Rondeau, G. Chêne, A. Ouattara, G Janvier for the PLASMACARD Study Group. Fresh Frozen Plasma transfusion did not reduce 30-day mortality in cardiopulmonary-bypass cardiac surgery patients with excessive bleeding. *The PLASMACARD multicenter cohort study*. *Transfusion*, 54 (4): 1114-24, 2014.
18. I. Baldi, M.D. Lebailly, G. Bouvier, V. Rondeau, V. Bouchart, and A. Garrigou. Levels and determinants of pesticide exposure in re-entry workers in vineyards: results of the PESTEXPO study. *Environmental Research*, 132: 360-9, 2014.
19. A. Mauguen, S. Collette, JP. Pignon, and V. Rondeau. Reply to "Interpretation of concordance measures for clustered data". *Statistics in Medicine*, 33(4) :717-718, February 2014.

20. S. Desmonde, J. Bosco Essanin, A. Edmond Aka, E. Messou, M. Amorissani Folquet, V. Rondeau, A. Ciaranello, and V Leroy. Morbidity and healthcare resource utilisation in HIV-infected children following antiretroviral therapy (ART) initiation in Côte d'Ivoire, 2004-2009. *JAIDS*, 65 : e95-e103, 2014.
21. A. Mauguen, B. Rachet, S. Mathoulin-Pélissier, G. MacGrogan, and V. Rondeau. Dynamic prediction of risk of death using history of cancer recurrences in joint frailty models. *Statistics in Medicine*, 32(30) : 5366-5380, 2013.
22. Y. Mazroui, S. Mathoulin-Pélissier, G. Macgrogan, V. Brouste, and V. Rondeau. Multivariate frailty model for two types of recurrent events with a dependent terminal event: Application to breast cancer data. *Biometrical Journal*, 55(6) :866-884, 2013.
23. A. Mauguen, S. Collette, J.P. Pignon, and V. Rondeau. Concordance measures in shared frailty models: application to multicenter data in cancer prognosis. *Statistics in Medicine*, 32(27):4803-4820, 2013.
24. I. Baldi, M.D. Lebailly, V. Rondeau, V. Bouchart, A. Blanc-Lapierre, G. Bouvier, M. Canal-Raffin, and A. Garrigou. Levels and determinants of pesticide exposure in operators involved in treatment of vineyards: resultst of the PESTEXPO study. *Journal of Exposure Science And Environmental Epidemiology*,22(6) : 593-600, 2012.
25. B. Lique, J.F. Timsit, and V. Rondeau. Investigating hospital heterogeneity with a multi-state frailty model: application to nosocomial pneumonia disease in intensive care units. *BMC medical research methodology*, 2012.
26. V. Rondeau, Y. Mazroui, and J.R. Gonzalez. frailtypack : An R package for the analysis of correlated survival data with frailty models using penalized likelihood estimation or parametrical estimation. *Journal of Statistical Software*, 47(4) :1-28, 2012.
27. Y. Mazroui, S. Mathoulin-Pélissier, P. Soubeyran, and V. Rondeau. General joint frailty model for recurrent event data with a dependent terminal event : Application to follicular lymphoma data. *Statistics in Medicine*, 897(December 2010) :n/a-n/a, February 2012.
28. I. Baldi, Gruber A. Coureau, G., V. Rondeau, and H. Loiseau. Re :occupational and residential exposure to electromagnetic fields and risk of brain tumours in adults : a case-control study in gironde, france. *International Journal of Cancer*, 130(3) :744, 2012.
29. I. Baldi, A. Gruber, V. Rondeau, P. Lebailly, P. Brochard, and C. Fabrigoule. Neuro behavioral effects of long-term exposure to pesticides : results from the 4-year follow-up of the PHYTONER study. *Occupational and environmental medicine*, 68(2) :108-15,February 2011.
30. V. Rondeau, E. Schaffner, F. Corbill ere, S. Mathoulin-Pélissier, and J.R. Gonzalez. Cure frailty models for survival data : an application to breast cancer recurrences. *Statistical Methods in Medical Research*, 897, June 2011.
31. V. Rondeau, J.P. Pignon, and S. Michiels. A joint model for the dependence between clustered times to tumour progression and deaths : A meta-analysis of chemotherapy in head and neck cancer. *Statistical methods in medical research*, 897 :1-19, October 2011.
32. J. Lepeule, H. Seegers, V. Rondeau, C. Robert, and J.M. Denoix. Risk factors for the presence and extent of Developmental Orthopaedic Disease in the limbs of young horses : insights from a count model. *Preventive veterinary medicine*, 22(5) :671-679,2011.
33. A.M. Gallagher, G.W. Meijer, D.P. Richardson, V. Rondeau, M. Skarp, M. Stasse-Wolthuis, G.C. Tweedie, R. Witkamp, et al. A standardised approach towards proving the efficacy of foods and food constituents for health claims (proclaim) : providing guidance. *British Journal of Nutrition*, 106(2) :S16-S28, 2011.
34. V. Rondeau, S. Mathoulin-Pélissier, L. Tanneau, A.J. Sasco, G. MacGrogan, and M. Debled. Separate and combined analysis of successive dependent outcomes after breast-conservation surgery : recurrence, metastases, second cancer and death. *BMC Cancer*,2010.
35. V. Rondeau. Statistical models for recurrent events and death : application to cancer events. *Mathematical and Computer Modeling*, 52 :949;955, 2010.
36. G. Encrenaz, A. Bénard, V. Rondeau, F. Bonnet, E. Lazzaro, D. Neau, M. Dupon, F. Dabis, P. Mercié, G. Ch[^]ene, and the ANRS CO3 Aquitaine Study Group (Groupe d'Epidémiologie Clinique du Sida en Aquitaine). Determinants of smoking cessation attempts among HIV-infected patients Results from a hospital-based prospective cohort. *Current HIV Research*, 1(8) :212-207, 2010.
37. C. Féart, C. Samieri, V. Rondeau, H. Amieva, F. Portet, JF. Dartigues, N. Scarmeas, and P. Barberger-Gateau. Adherence to a mediterranean diet, cognitive decline, and risk of Dementia. *Journal of the American Medical Association*, 302(6) :638-648, 2009.
38. B. Marin, R. Thiébaud, H.C. Bucher, V. Rondeau, D. Costagliola, M. Dorrucchi, O. Hamouda, M. Prins, S. Walker, K. Porter, et al. Non-AIDS-defining deaths and immuno-deficiency in the era of combination antiretroviral therapy. *Aids*, 23(13) :1743, 2009.
39. V. Rondeau, H. Jacqmin-Gadda, D. Commenges, C. Helmer, and J.F. Dartigues. Aluminum and Silica in Drinking Water and the Risk of Alzheimer's Disease or Cognitive Decline : Findings From 15-Year Follow-up of the PAQUID Cohort. *American Journal of Epidemiology*, 169(4) :489-496, 2009.
40. V. Rondeau and J.F. Dartigues. Exposition à l'aluminium Quel est le risque pour la santé ? *Le quotidien du médecin*. *Quotidien du medecin*, 20 Juin, 2008.
41. V. Rondeau. *Encyclopedia of medical decision making : Recurrent events*. Sage Publications, Inc, 2009.
42. V. Rondeau, H. Allain, S. Bakchine, P. Bonet, F. Brudon, G. Chauplannaz, B. Dubois, T. Gallarda, J.P. Lepine, F. Pasquier, et al. General practice-based intervention for suspecting and detecting dementia in France. *Dementia*, 7(4) :433, 2008.

43. V. Rondeau, S. Michiels, B. Liquet, and J.P. Pignon. Investigating trial and treatment heterogeneity in an individual patient data meta-analysis of survival data by means of the penalized maximum likelihood approach. *Statistics in Medicine*, 27(11) :1894-1910, 2008.
44. D. Krewski, R.A. Yokel, E. Nieboer, D. Borchelt, J. Cohen, J. Harry, S. Kacew, J. Lindsay, A.M. Mahfouz, and V. Rondeau. Human health risk assessment for aluminium, aluminium oxide, and aluminium hydroxide. *Journal of Toxicology and Environmental Health, Part B*, 10 :1-269, 2007.
45. V. Rondeau, S. Mathoulin-Pelissier, H. Jacqmin-Gadda, V. Brouste, and P. Soubeyran. Joint frailty models for recurring events and death using maximum penalized likelihood estimation : application on cancer events. *Biostatistics*, 8(4) :708-721, 2007.
46. J. Lepeule, V. Rondeau, J.F. Dartigues, and L. Filleul. Survival Analysis to Estimate Association Between Short-term Mortality and Air Pollution. *Environmental Health Perspectives*, 114(2) :242-7, 2006.
47. J. Lepeule, V. Rondeau, J.F. Dartigues, and L. Filleul. Cox Models : Lepeule et al. Respond. *Environmental Health Perspectives*, 114(12) :A691, 2006.
48. V. Rondeau, A. Iron, L. Letenneur, D. Commenges, F. Duchene, B. Arveiler, and J.F. Dartigues. Analysis of the effect of aluminum in drinking water and transferrin C 2 allele on Alzheimer's disease. *European Journal of Neurology*, 13(9) :1022-1025, 2006.
49. V. Rondeau, L. Filleul, and P. Joly. Nested frailty models using maximum penalized likelihood estimation. *Statistics in Medicine*, 25(23) :4036-4052, 2006.
50. D. Commenges and V. Rondeau. *The International Journal of Biostatistics*. 2(1) :1-26, 2006.
51. I. Harrabi, V. Rondeau, J.F. Dartigues, J.F. Tessier, and L. Filleul. Effects of particulate air pollution on systolic blood pressure : a population-based approach. *Environmental research*, 101(1) :89-93, 2006.
52. V. Rondeau, K. Berhane, and D.C. Thomas. A three-level model for binary time-series data : the effects of air pollution on school absences in the Southern California Children's Health Study. *Statistics in Medicine*, 24(7) :1103-1115, 2005.
53. V. Rondeau and J.R. Gonzalez. frailtypack : A computer program for the analysis of correlated failure time data using penalized likelihood estimation. *Computer Methods and Programs in Biomedicine*, 80(2) :154-164, 2005.
54. L. Filleul, V. Rondeau, S. Vandentorren, N. Le Moual, A. Cantagrel, I. Annesi-Maesano, D. Charpin, C. Declercq, F. Neukirch, C. Paris, et al. Twenty five year mortality and air pollution : results from the French PAARC survey. *British Medical Journal*, 62(7) :453-460, 2005.
55. G. Encrenaz, V. Rondeau, A. Messiah, and M. Auriacombe. Examining the influence of drop-outs in a follow-up of maintained opiate users. *Drug and alcohol dependence*, 79(3) :303-310, 2005.
56. L. Filleul, V. Rondeau, A. Cantagrel, J.F. Dartigues, and J.F. Tessier. CME Do Subject Characteristics Modify the Effects of Particulate Air Pollution on Daily Mortality Among the Elderly? *Journal of Occupational and Environmental Medicine*, 46(11) :1115-1122, 2004.
57. V. Rondeau, D. Commenges, and P. Joly. Maximum penalized likelihood estimation in a gamma-frailty model. *Lifetime Data Analysis*, 9(2) :139-153, 2003.
58. V. Rondeau and D. Commenges. Modélisation de la fragilité en survie. *Journal de la Société Française de Statistique*, 143(1-2) :103-119, 2002.
59. V. Rondeau. A review of epidemiologic studies on aluminum and silica in relation to Alzheimer's disease and associated disorders. *Reviews on Environmental Health*, 17(2) :107-122, 2002.
60. V. Rondeau, H. Jacqmin-Gadda, D. Commenges, and J.F. Dartigues. Re : aluminum in drinking water and cognitive decline in elderly subjects : the Paquid cohort. *American Journal of Epidemiology*, 154(3) :288-290, 2001.
61. V. Rondeau and D. Commenges. The epidemiology of aluminium and Alzheimer's disease.(C. Exley, Ed.) *aluminum and Alzheimer's disease. The science that describes the link. Elsevier Science B.V.* 2001.
62. I. Bourdel-Marchasson and V. Rondeau. Nutritional intervention trials for preventing and treating pressure ulcer. *Nutrition*, 17(2) :155-156, 2001.
63. I. Bourdel-Marchasson, M. Barateau, V. Rondeau, L. Dequae-Merchadou, N. Salles-Montaudon, J.P. Emeriau, G. Manciet, and J.F. Dartigues. A multi-center trial of the effects of oral nutritional supplementation in critically ill older inpatients. *Nutrition*, 6(1) :1-5, 2000.
64. V. Rondeau, D. Commenges, H. Jacqmin-Gadda, and J.F. Dartigues. Relation between aluminum concentrations in drinking water and Alzheimer's disease : an 8-year follow-up study. *American Journal of Epidemiology*, 152(1) :59-66, 2000.
65. D. Commenges and V. Rondeau. Standardized martingale residuals applied to grouped left truncated observations of dementia cases. *Lifetime Data Analysis*, 6(3) :229-235, 2000.
66. V. Rondeau. Analyse par vraisemblance pénalisée de données de survie groupées : application à la relation entre aluminium et démence. (Thesis, Bordeaux, France : Université Victor Segalen Bordeaux2), 2000.
67. V. Rondeau, D. Commenges, and I. Bourdel-Marchasson. Relation entre la composition d'aluminium et de silice dans l'eau de boisson et le risque de maladie d'Alzheimer. *Revue Epidémiol Santé Publique*, 47 :555-561, 1999.
68. V. Rondeau, D. Commenges, H. Jacqmin-Gadda, and JF Dartigues. Relation entre la composition d'aluminium et de silice dans l'eau de boisson et le risque de maladie d'Alzheimer. *Revue Epidémiol Santé Publique*, 46(suppl 1) :S32-S33, 1998.

69. V. Rondeau, D. Commenges, H. Jacqmin-Gadda, and JF Dartigues. Relation entre aluminium et silice dans l'eau de boisson et le risque de maladie d'Alzheimer. In : Gely- Nargeot MC, Ritchie K, Touchon J, eds. Actualités 1998 sur la maladie d'Alzheimer et les syndromes apparentés. Solal, page 513.