

# RENÉ ST-JACQUES

2422 Dutrisac  
Vaudreuil-Dorion, Qc, J7V 8J4

(Home) 450.424.5939  
(Cell) 514.605.0826  
renestjacques@hotmail.ca

## PROFILE

**Research pharmacologist/biologist (M.Sc.) with broad experience in *in-vivo* research.** Expert in study design, instrumentation, in-vivo techniques, surgery, data acquisition/analysis, and presentations (written, oral, French and English). Evaluation of material and human resources required for project's achievement. Trained for many safety and regulatory procedures (SOPs, IACUC, ELN, 21CFR, GLP). I also participated to many business optimization projects involving software development and implementation. Coached and managed students (M.Sc.) and technical personal.

## CAREER HISTORY

**RETIRED, AUTHOR AND WEBMASTER OF [WWW.MYHUMANBODY.CA](http://WWW.MYHUMANBODY.CA)**

**2024 –**

**CHARLES RIVER LABORATORIES, SENNEVILLE, QC**

**2018 – 2023**

**BUSINESS OPTIMIZATION** (Software Specialist, Sr.)

- **CAPAs**
- **Software development (VBA)**
- **Software configuration and implementation (ELN)**
- **Agile methodology and validation, user training**

**RESEARCH ASSOCIATE** (R&D veterinary services)

**2013 - 2018**

- **Anaesthesia and surgery:** mouse, rat, non-human primate, dog and swine.
- **Model development**
- **Training** of technical personal
- **Excel VBA** programming (process improvement)

**AUTHOR AND WEBMASTER OF [WWW.MYHUMANBODY.CA](http://WWW.MYHUMANBODY.CA) / [WWW.CORPSHUMAIN.CA](http://WWW.CORPSHUMAIN.CA)**

**2011 –**

- Translation of the website and development of new pages

**MERCK FROSST (MERCK & CO.), KIRKLAND, QC**

**2000 –2011**

**RESEARCH BIOLOGIST (IN-VIVO PHARMACOLOGIST)**

- Collaboration to **many pharmacological target** programs in **various therapeutic areas:**
  - Stroke, sepsis, urinary incontinence, intra-ocular pressure, orthostatic hypotension, memory, Diabetes & obesity, hypertension, cough, infectious diseases, in-vitro pharmacokinetics and expert subject matter for electronic laboratory notebook (ELN) and data analysis
- **Evaluation** of material and human resources necessary for project accomplishment.
- **Continuous learning:** scientific literature, courses, expert coaching and international meetings.
- **Surgery** and microsurgery.

- **Writing and revision:** protocols, SOPs, IACUC, FDA-IND, reports, presentation, publications.
- **Extensive data analysis and statistics:** Excel (VBA), GraphPad Prism, SigmaStat, BioBook (Quantrix), Statistica, Spotfire, ELNs, 21CFR, databases).
- **Training and management** of COOP students (MSc) and technical personal.

#### **DARTMOUTH COLLEGE, HANOVER, NH**

**1997 - 2000**

##### **RESEARCH ASSISTANT**

- **Respiratory physiology**, neuro(electro)physiology, data acquisition and complex analysis.

#### **LADY DAVIS INSTITUTE, MCGILL UNIVERSITY, MONTREAL, QC**

**1992 -1997**

##### **RESEARCH ASSISTANT**

- Microvascular **anatomy, histology**, aging, memory, oxidative stress.

#### **UNIVERSITY OF MONTREAL, MONTREAL, QC**

**1987-1992**

##### **LABORATORY TECHNICIAN**

- **Sensorimotor physiology** (Rhesus monkey), gait control (cat), neurophysiology,
- Complex data analysis, circular statistics,

## **EDUCATION**

### **M.Sc. Physiology, 1987**

#### **University of Montreal, Montreal, Qc**

Supervisor: Dr. Pierre Gauthier

Thesis: Role of the paraventricular nucleus  
in the control of arterial blood pressure in rats.

### **B.Sc. Biology, 1984**

University of Montreal, Montreal, Qc

## **PROFESSIONAL DEVELOPMENT**

- Literature search, Meeting with experts in the field, International meetings,
- Study design, Protocols, SOPs,
- Biosafety: CL-2, Radiology, Radiography; Regulatory: IACUC, GLP, FDA-IND,
- Histology, Microscopy, Radio photometry, DEXA scan
- Electrophysiology, Microiontophoresis, Microdialysis, Telemetry, Laser Doppler
- Multiple in-vivo and (micro)surgical techniques/models,
- Pharmacology, Toxicology, Pharmacokinetics (in-vitro mimics),
- Data analysis and statistics, Computer literacy,
  - Excel (VBA), Word, PowerPoint, Access, BioBook, GraphPad Prism, SigmaStats,
  - Statistica, ELNs, Photoshop, AxioVision, Northern Eclipse, SQL, Dreamwaver, HTML, PHP
- Scientific presentations (oral, poster, manuscript, French and English),
- Training and scheduling of students and technical personal,
- Talent recruitment (MSc level),

## PERSONAL STRENGTH

Scientific excellence, ethics & integrity, collaboration, continuous learning, **problem solving, detail oriented**, innovation, **computer literacy**, and multidisciplinary understanding.

Organized, calm, spontaneous, curious, **honest, trustful, respectful**, empathic and easy going.

Recipient of Special Achievement Awards for outstanding contributions.

Scientific judge for the Quebec final of Expo-Science (2006 - 2014).

Ten years of scout coaching and management,

Hobby: Author and webmaster of ([www.myhumanbody.ca](http://www.myhumanbody.ca) , [www.corpshumain.ca](http://www.corpshumain.ca) )

## Publications - Manuscripts

1. Pierre-André Fournier, Mélissa Arbour, Elizabeth Cauchon, Austin Chen, Amandine Chefson, Yves Ducharme, Jean-Pierre Falguyret, Sébastien Gagné, Erich Grimm, Yongxin Han, Robert Houle, Patrick Lacombe, Jean-François Lévesque, Dwight MacDonald, Bruce Mackay, Dan McKay, M David Percival, Yeeman Ramtohol, **René St-Jacques**, Sylvie Toulmond, Design and synthesis of potent, isoxazole-containing renin inhibitors., *Bioorganic & medicinal chemistry letters*. 03/2012; 22(8):2670-4.
2. Patrick Lacombe, Mélissa Arbour, Renée Aspiotis, Elizabeth Cauchon, Austin Chen, Daniel Dubé, Jean-Pierre Falguyret, Pierre-André Fournier, Michel Gallant, Erich Grimm, Yongxin Han, Hélène Juteau, Suzanna Liu, Christophe Mellon, Yeeman Ramtohol, Daniel Simard, **René St-Jacques**, Gavin Chit Tsui, 3,4-Diaryl piperidines as potent renin inhibitors., *Bioorganic & medicinal chemistry letters*. 03/2012; 22(5):1953-7
3. **St-Jacques R**, Toulmond S, Cromlish W, Lie J, Liu S, Binkert C, Fischli W, Hess P, Steiner B, Percival MD and Riendeau D., Characterization of a stable, hypertensive rat model suitable for the consecutive evaluation of human renin inhibitors, *J Renin Angiotensin Aldosterone Syst*. 2011, 12(3): 133-45.
4. Chen A, Cauchon E, Chefson A, Dolman S, Ducharme Y, Dubé D, Falguyret JP, Fournier PA, Gagné S, Gallant M, Grim E, Han Y, Houle R, Huang JQ, Hughes G, Juteau H, Lacombe P, Lauzon S, Lévesque JF, Liu S, MacDonald D, Mackay B, McKay D, Percival MD, **St-Jacques R** and Toulmond S, Renin inhibitors for the treatment of hypertension: design and optimization of a novel series of tertiary alcohol-bearing piperidines. *Bioorg Med Chem Lett*. 2011, 21(13):3976-81.
5. Chen A, Campeau LC, Cauchon E, Chefson A, Ducharme Y, Dubé D, Falguyret JP, Fournier PA, Gagné S, Grim E, Han Y, Houle R, Huang JQ, Lacombe P, Laliberté S, Lévesque JF, Liu S, MacDonald D, Mackay B, McKay D, Percival MD, Regan H, **St-Jacques R** and Toulmond S, Renin inhibitors for the treatment of hypertension: design and optimization of a novel series of pyridine-substituted piperidines. *Bioorg Med Chem Lett*. 2011, 21(13):3970-5.
6. Percival MD, Toulmond S, Coulombe N, Cromlish W, Desmarais S, Liu S, **St-Jacques R**, Gauthier J-Y and Fournier J-F, Pharmacological and genetic evidence that Cathepsin B is not the physiological activator of rodent prorenin, *Biol Chem*. 2010, 391(12):1469-73
7. Funicello M, Novelli M, Ragni M, Vottari T, Cocuzza C, Soriano-Lopez J, Chiellini C, Boschi F, Marzola P, Masiello P, Saftig P, Santini F, **St-Jacques R**, Desmarais S, Morin N, Mancini J, Percival MD, Pinchera A and Maffei M., Cathepsin K null mice show reduced adiposity during the rapid accumulation of fat stores., *PLoS One*. 2007, 2(1):e683
8. Stock N, Munoz B, Wrigley JD, Shearman MS, Beher D, Peachey J, Williamson TL, Bain G, Chen W, Jiang X, **St-Jacques R** and Prasit P., The geminal dimethyl analogue of Flurbiprofen as a novel Abeta42 inhibitor and potential Alzheimer's disease modifying agent., *Bioorg Med Chem Lett*. 2006, 16(8):2219-23.

9. **St-Jacques R**, Filiano JJ, Darnall RA and St-John WM., Characterization of hypoxia-induced ventilatory depression in newborn piglets., *Exp Physiol.* 2003, 88(4):509-15
10. **St Jacques R** and St-John WM., Sensitivities of eupnea and gasping to alterations in temperature of in vivo and perfused rat preparations., *Respir Physiol.* 2000, 123(3):215-24
11. **St-Jacques R** and St-John WM., Transient, reversible apnoea following ablation of the pre-Bötzinger complex in rats., *J Physiol.* 1999, 520 Pt 1:303-14
12. St-John WM, **St-Jacques R**, Li A and Darnall RA., Modulation of hypoxic depressions of ventilatory activity in the newborn piglet by mesencephalic mechanisms., *Brain Res.* 1999, 819(1-2):147-9
13. **St-Jacques R**, Chapman A, Lacaille JC, Mohr G and Schipper HM., Acceleration of ageing-related gliopathic changes and hippocampal dysfunction following intracerebroventricular infusion of cysteamine in adult rats., *Neuroscience.* 1999, 90(3):1103-13
14. **St-Jacques R**, Gorczyca W and Mohr G., Microvascular anatomy of striate vessels in dogs: contribution to an experimental model of forebrain ischemia., *Neurol Res.* 1996, 18(2):157-62
15. **St-Jacques R**, Gorczyca W, Mohr G and Schipper HM., Mapping of the basal forebrain cholinergic system of the dog: a choline acetyltransferase immunohistochemical study., *J Comp Neurol.* 1996, 366(4):717-25

## Abstracts

1. Giuseppina Iacono, Julie Douville, Claudia Foucault, **René St-Jacques**, Frédérick Emond and Christine Copeman, Optimization of Intrathecal Administration in the Rat, Charles River Montreal, Quebec, Canada
2. Julie Douville, Frédérick Emond, Claudia Foucault, J-F. Lafond, **René St-Jacques** and Christine Copeman, Feasibility of targeted intracerebral administration in the Cynomolgus monkey, Charles River Montreal, Quebec, Canada, Society for Neurosciences, Chicago, IL, Oct. 2015
3. Julie Douville, C. Massicotte, Frédérick Emond, Claudia Foucault, **René St-Jacques** and Christine Copeman, Intra-articular injections into stifle joint of Sprague-Dawley rats and Beagle dogs: Feasibility, tolerated volumes and synovial fluid sampling, Charles River Montreal, Quebec, Canada, SOT, San Diego, CA, Mar. 2015
4. Lavoie M, **St-Jacques R** and Popovic R, Comparison of four different methods for body temperature measurements in mice and rats., Annual meeting of CALAS, Québec, Qc. Apr.23-27, 2010
5. **St-Jacques R**, Xu D, Huang J-Q, Davoli M-A, Zhu Y, Bureau Y, Robertson GS and Ng GYK, Strain Differences in reproducibility and salvagibility of ischemic brain injury following middle cerebral artery occlusion (MCAo) in rats., Society for Neuroscience, San Diego, CA, 2001
6. **St-Jacques R**, St.John W, Experimental Biology, Sand Diego, CA, 2000
7. **St-Jacques R**, Mohr G, Chapman CA, Lacaille J-C and Schipper HM, Pharmacological acceleration of astrocyte senescence and memory impairment in rats., Society for Neuroscience, New Orleans, LA, 1997
8. **St. Jacques, R.**, Mohr, G., Chapman, A., Lacaille, J.-C., Schipper, H.M. Pharmacological acceleration of astrocyte senescence and memory impairment in rats. (oral) McGill University, Division of Geriatric Medicine, Second Research Day, April 4, 1997.

9. **St. Jacques, R.**, Schipper, H.M., Gorczyca, W., Mohr, G. Mapping of the basal forebrain cholinergic system of the dog: A choline acetyltransferase immunohistochemical study. *Can. J. Neurol. Sci.*, 21(Suppl.2):S46, 1994.
10. **St. Jacques, R.**, Gorczyca, W., Mohr, G., Schipper, H. Mapping of the basal forebrain cholinergic system of the dog: A choline acetyltransferase immunohistochemical study. (oral) McGill Neurosurgical Conference Day, Dec. 14, 1994.
11. **St. Jacques, R.**, Gorczyca, W., Novak, P., Mohr, G. Microvascular anatomy of striate vessels in dogs: Contribution to an experimental model of forebrain ischemia. *Can. Neurol. Sci.*, 20(Suppl.2):S76, 1993.
12. **St. Jacques, R.**, Gorczyca, W., Novak, R., Mohr, G. Microvascular anatomy of striate vessels in dogs: Contribution to an experimental model of forebrain ischemia. (oral) McGill Neurosurgical Conference Day, Dec. 4, 1992.
13. **St-Jacques R** et Gauthier P, Réponse pressive induite par la stimulation du noyau paraventriculaire (PVN) chez le rat., 54<sup>e</sup> Congrès Annuel de ACFAS, Montréal, Qc., 12-16 Mai. 1986
14. **St-Jacques R**, Réponse pressive à la stimulation du noyau paraventriculaire chez le rat., (oral) IVe Congrès Annuel de AEGSFM, Montréal, Qc., 21-22 Fév. 1985

Also acknowledged in approximately fifteen peer-reviewed publications when I collaborated with Drs Trevor Drew and Elaine Chapman at University of Montreal, Qc.