

## Frederico S Fazan

Biotechnology Building, 215 Tower Rd, Ithaca, NY 14853  
+1(319) 325-2883 - [frf4004@med.cornell.edu](mailto:frf4004@med.cornell.edu)

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### Current Position

PhD Student of Physiology, Biophysics and Systems Biology	Weill Cornell Graduate School of Medical Sciences	New York, NY 2022 – Present
Part-time online MBA Student in Investments and Asset Allocation	UniBTA – Partnership with Group PRIMO	São Paulo, SP 2023 - Present

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### Education and Training

Research Fellow Advisor: Christopher Ahern	Mol Phys and Biophysics Carver College of Medicine The University of Iowa	Iowa City, IA 2020 - 2022
Master's Degree Advisor: Eduardo Colombari	Federal University of São Paulo Department of Pharmacology Paulista School of Medicine	São Paulo, SP 2018 - 2020
<i>Master's Thesis Title: Hyperkalemia-induced secondary hyperaldosteronemia: a complex model of integrative research</i>		
Short-term Scholar Advisor: Joel C Geerling	Iowa Neuroscience Institute Neurology Department Carver College of Medicine	Iowa City, IA 2019-2020
Advanced Course Student Advisor: Antonio Carlos Roque	School of Physics Applied to Medicine and Biology University of São Paulo	Ribeirão Preto, SP Winter – 2018
Undergraduate Research Advisor: Terezila M Coimbra	Renal Physiology Laboratory Physiology Department University of São Paulo	Ribeirão Preto, SP 2017-2018
<i>Undergraduate Thesis Title: Effect of previous physical training on the acute kidney injury induced in rats by renal ischemia-reperfusion.</i>		
Bachelor of Science	University of São Paulo Ribeirão Preto Medical School	Ribeirão Preto, SP 2014-2018

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### Techniques

Expertise in		Familiarity with	
▪ Cloning	▪ Tissue culture	▪ Immunofluorescence	▪ In-situ Hybridization
▪ Transfection	▪ Western Blot	▪ Stereotaxic surgery	▪ Elisa
▪ Two electrode voltage-clamp	▪ Whole cell voltage clamp	▪ Immunohistochemistry	▪ Nonsense suppression
▪ Rat/mouse abdominal surgery		▪ Viral production	▪ PCR
		▪ ChIP-seq	▪ NGS

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### Awards

Outstanding Oral Presentation	The Iowa Physiological Society	Iowa City, IA USA – 2019
Honorable Mention	III Northeastern Symposium in Neurosciences, Nutrition and Human Development	Recife, PE Brazil – 2019
Honorable Mention	XXIII Brazilian Symposium of Cardiovascular Physiology	Ribeirão Preto, SP Brazil – 2019
Alvaro Osório de Almeida Award (AOA)	International Union of Physiological Sciences (IUPS)	Rio de Janeiro, RJ Brazil – 2017
Presidential Education Award	President's Education Awards Program, Federal Government of the United States	Coralville, IA USA – 2009

## Publications in peer reviewed journals

Peltekian L, Gasparini S, **Fazan FS**, Karthik S, Iverson G, Resch JM, Geerling JC. Sodium appetite and thirst do not require angiotensinogen production in astrocytes or hepatocytes. *J Physiol*. 2023 Jun 8. doi: 10.1113/JP283169. Epub ahead of print. PMID: 37291801.

Infield DT, Schene ME, **Fazan FS**, Galles GD, Galpin JD, Ahern CA. Real-time observation of functional specialization among phosphorylation sites in CFTR. *J Gen Physiol*. 2023 Apr 3;155(4):e202213216. doi: 10.1085/jgp.202213216. Epub 2023 Jan 25. PMID: 36695813; PMCID: PMC9930130.

Galles GD, Infield DT, Clark CJ, Hemshorn ML, Manikandan S, **Fazan F**, Rasouli A, Tajkhorshid E, Galpin JD, Cooley RB, Mehl RA, Ahern CA. Tuning phenylalanine fluorination to assess aromatic contributions to protein function and stability in cells. *Nat Commun*. 2023 Jan 4;14(1):59. doi: 10.1038/s41467-022-35761-w. PMID: 36599844; PMCID: PMC9813137.

**Fazan FS**, Colombari DSA, Menani JV, Fazan R Jr, Colombari E (2021) Electrocardiographic changes in the acute hyperkalaemia produced by intragastric KCl load in rats. *Exp Physiol* May;106(5):1263-1271. doi: 10.1113/EP089356.

**Fazan FS**, Colombari E, Loewy AD, Geerling JC (2021) Despite increasing aldosterone, elevated potassium is not necessary for activating aldosterone-sensitive HSD2 neurons or sodium appetite. *Physiol Rep*. May;106(5):1263-1271. doi: 10.1113/EP089356

Fontanesi LB, **Fazan FS**, Dias FJ, Schiavoni MCL, Marques W Jr and Fazan VPS (2019) Sensory and Motor Conduction Velocity in Spontaneously Hypertensive Rats: Sex and Aging Investigation. *Front. Syst. Neurosci*. 13:62. doi: 10.3389/fnsys.2019.00062

**Fazan FS**, Brognara F, Fazan Junior R, Murta Junior L.O, Virgilio Silva L.E. (2018) Changes in the Complexity of Heart Rate Variability with Exercise Training Measured by Multiscale Entropy-Based Measurements. *Entropy*. 20, 47. doi: 10.3390/e20010047

Sato KL, **Fazan FS**, Sanada LS, Ferreira Rda S, Castania JA, Fazan VPS, et al., Myelin Area and Axon Diameter Relation in Renal Nerve Myelinated Fibers of Acute and Chronic Diabetic Rats. *Int J Anat Appl Physiol*. 2018;S1:001:1-7. doi: dx.doi.org/10.19070/2572-7451-S101001

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## Other Work

Volunteer general website developer of the online journal of the Brazilian Society of Anatomy (SBA – Journal of Morphological Sciences ISSN: 2177-0298 <https://www.jms-sba.com/>)

Volunteer senior manager and general website developer of the 23<sup>rd</sup> gathering of the Brazilian Symposium on Cardiovascular Research – Largest nationwide cardiovascular experts gathering in Brazil (2019) <https://sbfcv2019.wixsite.com/home>

Founder and volunteer teacher of the Life Sciences Winter Course at the São Paulo State University – UNESP/Araraquara (2019)

Founder and volunteer teacher of the Biomedical Sciences Winter Course at the Ribeirão Preto Medical School - University of São Paulo (2017)

Volunteer teacher – High School level Math and Physics – at PET program (tutoring program for impoverished communities) - Ribeirão Preto Medical School, University of São Paulo (2015)