St. Gallen, Switzerland

JULIAN KLUG

MEDICAL CURRICULUM

Kantonsspital St. Gallen — **Switzerland**
Resident physician, Anaesthesiology and Critical Care Medicine — *Since 2022*

GHOL - Hospital Nyon — **Switzerland**
Resident physician, Internal, Emergency and Critical Care Medicine — *2020-2022*

EDUCATION

University of Geneva — **Switzerland**
Doctorate in Human Medicine — *Since 2020*
Bachelor & Master of Medicine — *2013-2020*

Lycée International de Ferney-Voltaire — **France**
Baccalauréat scientifique à Option Internationale (*19,5/20*) — *2010-2013*
German Abitur (*1,0 in system of 1-best to 6-worst*)

PAST WORK EXPERIENCE

Project leader — **Geneva, Switzerland**
Vlynt, Distributed content delivery network for server load balancing — *2016-2019*

Teacher of physics, chemistry, biology, physiology and anatomy — **Geneva, Switzerland**
Med Prep, Complementary medical courses — *2014-2017*

Research and teaching assistant, Anatomy department — **Geneva University, Switzerland**
2016

DISTINCTIONS

Best Poster Award, Innovation centre, HUG — **Geneva, Switzerland**
2019

Finalist, START Entrepreneurial contest — **Lausanne, Switzerland**
2017

Prize on the internship in general medicine, Faculty of Medicine — **Geneva University, Switzerland**
2015

Gold medallist, French national *Geoscience Olympics* — **France**
2012

EXTRA-CURRICULAR POSITIONS

Research program for medical students — **Harvard University, USA**
Lee Lab, Eaton-Peabody Laboratories, Massachusetts Eye & Ear Infirmary — *2016&2017*

External consultant, Division for foreign economic policy — **Berlin, Germany**
Federal Foreign Office — *October-December 2016*

Research program for medical students — **Geneva University, Switzerland**
Laboratory for neurology and imaging of cognition — *July-August 2015*

PROJECTS

Construction of a platform for the use of **machine learning models in clinical practice**, *Kassandra* — **Geneva, Switzerland** *Since 2020*

Construction of a platform for **outpatient-hospital communication** *PHI* — **Geneva, Switzerland** *2018-2020*

Machine learning in the prediction of clinical outcome after acute ischemic stroke *Carrera Lab*, HUG and *MIP Lab*, EPFL — **Geneva, Switzerland** *Since 2017*

Study on **infection prevention and control** in the Bolivian Altiplano Professor Didier Pittet and Professor Benedetta Allegranzi *(WHO & Faculty of Medicine, University of Geneva)* — **Bolivia** *2016*

PEER-REVIEWED PUBLICATIONS

Klug J, Van Asche M, Dirren E, Richiardi J, Carrera E. Preparing for a second attack: a lesion simulation study on network resilience after stroke. *Stroke*. 2022; 2038-2047.

Paredes J, Salerno A, **Klug J**, Dirren E, Sanda N, Bonvin C, Dunet V, Vargas M, Saliou G, Machi P, Michel P, Carrera E. Intravenous rtPA before thrombectomy vs thrombectomy alone in strokes with unknown time of onset. *Stroke*. 2022. e136-e138.

Dirren E, Bourgeois A, **Klug J**, Kleinschmidt A, van Assche M, Carrera E. The neural correlates of intermanual transfer. NeuroImage 2021;118657.

Klug J, Mach B, Racine G, Moret Bochatay M. Covid-19 : ne pas mettre la charrue avant les bœufs [COVID-19: Do not put the cart before the horse]. Rev Med Suisse 2021;17(754):1749–52.

Bourcier S, **Klug J**, Nguyen Lee S. Non-occlusive mesenteric ischemia: Diagnostic challenges and perspectives in the era of artificial intelligence. World J Gastroenterol 2021;27(26):4088–103.

Klug J, Leclerc G, Dirren E, Preti MG, Van De Ville D, Carrera E. Bayesian Skip Net: Building on Prior Information for the Prediction and Segmentation of Stroke Lesions. In: Crimi A, Bakas S, editors. Brainlesion: Glioma, Multiple Sclerosis, Stroke and Traumatic Brain Injuries. Cham: Springer International Publishing; 2021. p. 168–80.

Klug J, Dirren E, Preti MG, et al. Integrating regional perfusion CT information to improve prediction of infarction after stroke. J Cereb Blood Flow Metab 2021;41(3):502–10.

Bègue I, Blakemore R, **Klug J**, et al. Metacognition of visuomotor decisions in conversion disorder. Neuropsychologia 2018;114:251–65.

Tarabichi O, Kanumuri VV, **Klug J**, et al. Three-Dimensional Surface Reconstruction of the Human Cochlear Nucleus: Implications for Auditory Brain Stem Implant Design. J Neurol Surg B Skull Base 2020;81(2):114–20.

CONFERENCE PROCEEDINGS

Julian Klug, Guillaume Leclerc, Elisabeth Dirren, Preti Maria Gulia, Dimitri Van De Ville, Emmanuel Carrera. Deep Learning Building on Prior Ischemic Core Segmentation Improves Prediction of Infarction After Stroke. *International Stroke Conference 2021*. March 2021.

Jose Bernardo Escribano Paredes, **Julian Klug**, Elisabeth Dirren, Nicolae Sanda, Maria Vargas, Paolo Machi, Emmanuel Carrera. Perfusion-Guided Bridging Therapy in Strokes With Unknown Time of Onset and Large Vessel Occlusion. *International Stroke Conference 2021*. March 2021.

Julian Klug, Elisabeth Dirren, Giulia Preti, Paolo Machi, Andreas Kleinschmidt, Isabel M. Vargas, Dimitri Van De Ville, Emmanuel Carrera. Integrating regional perfusion CT information improves prediction of infarction after stroke. *ESO-WSO 2020 Conference*. November 2020.

Julian Klug, Elisabeth Dirren, Giulia Preti, Paolo Machi, Andreas Kleinschmidt, Isabel M. Vargas, Dimitri Van De Ville, Emmanuel Carrera. Integrating regional perfusion CT information to multiparametric models improves prediction of infarction after stroke. *CIBM 15th Anniversary Event*, October 2019.

Vivek V. Kanumuri, **Julian Klug**, Osama Tarabichi, Samuel Barber, Marybeth E. Cunnane, M. Christian Brown, Aaron Remenschneider, Elliott D. Kozin, Daniel J. Lee. Diffusion Tensor Imaging in Candidates for the Auditory Brainstem Implant. *ARO 40th MidWinter Meeting*, February 2017, Baltimore, USA.

TEACHING

Organisation of continuing medical education for residents in internal medicine and general surgery during the COVID-19 pandemic — **Switzerland** *2020-2021*

Supervision of individual projects of master students at the *MIP-Lab, EPFL* — **Geneva, Switzerland** *Since 2020*

ADMINISTRATIVE AND COLLECTIVE DUTIES

Occasional reviewer for *Stroke, Neuroimage: Reports* and *Theranostics.*

COMMUNITY INVOLVMENT

Blood donation campaigns (Geneva University)
HIV awareness campaign (Lycée International de Ferney-Voltaire)

SKILLS

Languages: German (native), French (native), English (fluent, C1)
Computer languages: Javascript, Python, R, Java, Bash Shell Scripting, Matlab, HTML5, CSS
Development skills: Machine Learning, devops, browser and network technologies, project management

INTERESTS guitar, mathematics, international politics, rock-climbing, backcountry skiing