Stanford

# François Grolleau

Postdoctoral Scholar, Biomedical Informatics

## Bio

### BIO

François Grolleau MD, MPH, PhD is a Postdoctoral Scholar at the Stanford Center for Biomedical Informatics Research. His research work centers on developing and evaluating computational systems that use large language models and other advanced methods from statistics and machine learning to assist medical decision-making.

François is a certified Anesthesiologist and Critical Care Medicine specialist from France. He holds an MPH degree and a PhD in Biostatistics from Paris Cité University. In 2016/2017, he worked as a research fellow in the Department of Health Research Methods, Evidence, and Impact at McMaster University, Canada (Profs Yannick Le Manach and Gordon Guyatt). During his doctorate with Prof. Raphaël Porcher, he utilized causal inference, personalized medicine methods, and statistical reinforcement learning for medical applications in the ICU.

### PROFESSIONAL EDUCATION

- Fellowship, Centre for Research in Epidemiology and Statistics (2023)
- PhD, Paris Cité University (2023)
- Board Certification, French Board of Anesthesiology and Critical Care Medicine (2019)
- Residency, University of Caen Normandy , Critical Care Medicine, Anesthesiology, and Nephrology (2019)
- MPH, Paris Descartes University (2017)
- MD, Toulouse III - Paul Sabatier University (2013)

### STANFORD ADVISORS

- Nigam Shah, Postdoctoral Faculty Sponsor

### LINKS

- Personal website: https://fcgrolleau.github.io/
- Publications: https://scholar.google.com/citations?user=Xa6uqaEAAAAJ&hl=en&oi=ao
- CV: https://fcgrolleau.github.io/docs/Francois_Grolleau_CV.pdf

## Publications

### PUBLICATIONS

- **Physician-Reported Safety Outcomes of AI-Generated Hospital Course Summaries.** *JAMA network open*
  Grolleau, F., Liang, A. S., Keyes, T., Ma, S. P., Lew, T., Huynh, T. R., Steele, N., Chung, P., Qin, P., Chandra, G., Wang, S. F., Mullen, E., Carpenter, et al

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- **Retrieval-Augmented Guardrails for AI-Drafted Patient-Portal Messages: Error Taxonomy Construction and Large-Scale Evaluation.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
  Chen, W., Haredasht, F. N., Black, K. C., Grolleau, F., Alsentzer, E., Chen, J. H., Ma, S. P.
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- **A New His-Ventricular Threshold for Myotonic Dystrophy Type 1-Reply.** *JAMA cardiology*
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  2026

- **Holistic evaluation of large language models for medical tasks with MedHELM.** *Nature medicine*
  Bedi, S., Cui, H., Fuentes, M., Unell, A., Wornow, M., Banda, J. M., Kotecha, N., Keyes, T., Mai, Y., Oez, M., Qiu, H., Jain, S., Schettini, et al
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- **MedFactEval and MedAgentBrief: A Framework and Workflow for Generating and Evaluating Factual Clinical Summaries**
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- **Effect of Baseline Dialysis and Plasma Exchange on Renal Prognosis in Patients With Antineutrophil Cytoplasmic Autoantibody-Associated Vasculitis** *KIDNEY INTERNATIONAL REPORTS*
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  2025; 10 (12): 4199-4206

- **Electrocardiogram vs Electrophysiological Study and Major Conduction Delays in Myotonic Dystrophy Type 1** *JAMA CARDIOLOGY*
  Clementy, N., Labombarda, F., Grolleau, F., Algalarrondo, V., Bassez, G., Becane, H., Behin, A., Chapon, F., El Hachmi, M., Fayssoil, A., Fontaine, B., Garcia, R., Laforet, et al
  2025; 10 (11): 1121-1129

- **Systematic Exploration of Hospital Cost Variability: A Conformal Prediction-Based Outlier Detection Method for Electronic Health Records.** *AMIA Joint Summits on Translational Science proceedings. AMIA Joint Summits on Translational Science*
  Grolleau, F., Goh, E., Ma, S. P., Masterson, J., Ross, T., Milstein, A., Chen, J. H.
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- **powerROC: An Interactive Web Tool for Sample Size Calculation in Assessing Models' Discriminative Abilities.** *AMIA Joint Summits on Translational Science proceedings. AMIA Joint Summits on Translational Science*
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- **Monitoring strategies for continuous evaluation of deployed clinical prediction models.** *Journal of biomedical informatics*
  Kim, G. Y., Corbin, C. K., Grolleau, F., Baiocchi, M., Chen, J. H.
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- **Comparison of ultrasound and dynamic MRI for the measurement of diaphragmatic excursion: A prospective single-center study** *PLOS ONE*
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- **powerROC: An Interactive Web Tool for Sample Size Calculation in Assessing Models' Discriminative Abilities.** *AMIA Joint Summits on Translational Science proceedings. AMIA Joint Summits on Translational Science*
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- **Systematic Exploration of Hospital Cost Variability: A Conformal Prediction-Based Outlier Detection Method for Electronic Health Records.** *AMIA Joint Summits on Translational Science proceedings. AMIA Joint Summits on Translational Science*
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- **Right Patient, Right Specialist, Right Time: Retrieval Augmented Generation for Specialty Referral Routing.** *AMIA ... Annual Symposium proceedings. AMIA Symposium*
  Haredasht, F. N., Goh, E., Ravi, V., Ashtari, P., Jiang, Y., Yuldashev, N., Grolleau, F., Gallo, R. J., Shah, A., Hur, E., Chopra, K., Jee, O., Lee, et al
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- **Personalizing renal replacement therapy initiation in the intensive care unit: a reinforcement learning-based strategy with external validation on the AKIKI randomized controlled trials** *JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION*
  Grolleau, F., Petit, F., Gaudry, S., Diard, E., Quenot, J., Dreyfuss, D., Tran, V., Porcher, R.
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- **Authors' Reply: Predicting Kidney Response to Plasma Exchange in ANCA-Associated Vasculitis: Need for Plausible Models** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
  Nezam, D., Porcher, R., Grolleau, F., Terrier, B., French Vasculitis Study Grp
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- **Continuous renal replacement therapy versus intermittent hemodialysis as first modality for renal replacement therapy in severe acute kidney injury: a secondary analysis of AKIKI and IDEAL-ICU studies** *CRITICAL CARE*
  Gaudry, S., Grolleau, F., Barbar, S., Martin-Lefevre, L., Pons, B., Boulet, E., Boyer, A., Chevrel, G., Montini, F., Bohe, J., Badie, J., Rigaud, J., Vinsonneau, et al
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- **Personalization of renal replacement therapy initiation: a secondary analysis of the AKIKI and IDEAL-ICU trials** *CRITICAL CARE*
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- **Kidney Histopathology Can Predict Kidney Function in ANCA-Associated Vasculitides with Acute Kidney Injury Treated with Plasma Exchanges** *JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY*
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- **Delayed Cerebral Ischemia After Subarachnoid Hemorrhage: Is There a Relevant Experimental Model? A Systematic Review of Preclinical Literature** *FRONTIERS IN CARDIOVASCULAR MEDICINE*
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- **Fold-stratified cross-validation for unbiased and privacy-preserving federated learning** *JOURNAL OF THE AMERICAN MEDICAL INFORMATICS ASSOCIATION*
  Bey, R., Goussault, R., Grolleau, F., Benchoufi, M., Porcher, R.
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- **The Fragility and Reliability of Conclusions of Anesthesia and Critical Care Randomized Trials With Statistically Significant Findings: A Systematic Review** *CRITICAL CARE MEDICINE*
  Grolleau, F., Collins, G. S., Smarandache, A., Pirracchio, R., Gakuba, C., Boutron, I., Busse, J. W., Devereaux, P. J., Le Manach, Y.
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