Stanford



Olivier Gevaert

Associate Professor of Medicine (Computational Medicine) and of Biomedical Data Science

NIH Biosketch available Online Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Associate Professor, Computational Medicine
- Associate Professor, Department of Biomedical Data Science
- Member, Bio-X
- Member, Cardiovascular Institute
- Member, Wu Tsai Human Performance Alliance
- Member, Maternal & Child Health Research Institute (MCHRI)
- Member, Stanford Cancer Institute
- Member, Wu Tsai Neurosciences Institute

HONORS AND AWARDS

- Faculty Fellow at the Stanford Center at Peking University, SCPKU (September-October 2016)
- Henri Benedictus Fellow, King Baudouin Foundation (June 2009)
- Honorary Fellow, Belgian American Educational Foundation (BAEF) (June 2009)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, International Society for Computational Biology (ISCB) (2006 - 2018)
- Member, American Society of Neuroradiology (ASNR) (2013 - 2013)
- Member, Society for Neuro-Oncology (SNO) (2013 - 2020)
- Member, American Medical Informatics Association (AMIA) (2015 - 2019)
- Member, Radiological Society of North America (RSNA) (2018 - present)
- Member, American Association for Cancer Research (AACR) (2010 - present)

PROFESSIONAL EDUCATION

- Certificate, Stanford Business School , Stanford Ignite (2012)
- Ph.D, University of Leuven, Belgium , BIoinformatics (2008)
- M.S., University of Leuven, Belgium , Artificial Intelligence (2004)
- M.S., University College, Ghent, Belgium , Electrical Engineering/Computer Science (2003)

LINKS

- Homepage: http://med.stanford.edu/gevaertlab.html

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My lab focuses on biomedical data fusion: the development of machine learning methods for biomedical decision support using multi-scale biomedical data. Previously we pioneered data fusion work using Bayesian and kernel methods studying breast and ovarian cancer. Additionally, we developed computational algorithms for the identification of driver genes using multi-omics data. Furthermore, we are working on multi-scale biomedical data fusion methods, bridging the molecular using omics data, cellular using pathology data and tissue using medical imaging data.

Teaching

COURSES

2026-27

- An overview of Biomedical Data Science: BMDS 202 (Aut)
- Machine Learning Approaches for Data Fusion in Biomedicine: BMDS 221 (Win)
- Multiscale AI in Precision Oncology: From Multi-Omics to Histology: BIOS 276 (Aut)

2025-26

- Machine Learning Approaches for Data Fusion in Biomedicine: BMDS 221 (Aut)

2024-25

- An overview of Biomedical Data Science: BIODS 202, BIOMEDIN 202 (Win)
- Machine Learning Approaches for Data Fusion in Biomedicine: BIODS 221, BIOMEDIN 221 (Aut)

2023-24

- BIOMEDICAL DATA SCIENCE: BIODS 202, BIOMEDIN 202 (Win)
- Machine Learning Approaches for Data Fusion in Biomedicine: BIODS 221, BIOMEDIN 221 (Aut)

STANFORD ADVISEES

Med Scholar Project Advisor

Ank Agarwal, Isaac Applebaum, Saachi Datta

Doctoral Dissertation Reader (AC)

Brennan Simon

Postdoctoral Faculty Sponsor

Humaira Noor, Marija Pizurica, Qinmei Xu

Doctoral Dissertation Advisor (AC)

Ibrahim Gulluk

Master's Program Advisor

Sanjay Palta-Hill

Doctoral (Program)

Alan Mao

Postdoctoral Research Mentor

Qinmei Xu

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biomedical Data Science (PhD Program)
- Biophysics (PhD Program)

Publications

PUBLICATIONS

- **A benchmark study of vision and pathology foundation models for computational pathology.** *Nature communications*
  Bareja, R., Carrillo-Perez, F., Zheng, Y., Pizurica, M., Nandi, T. N., Tian, L., Shen, J., Madduri, R., Gevaert, O.
  2026; 17 (1)
- **Utilising the digital twin for disease prevention, treatment and in silico research.** *BMJ digital health & AI*
  Ahuja, N., Hom, J., Chen, J. H., Gevaert, O.
  2026; 2 (1): e000031
- **Medical digital twins: enabling precision medicine and medical artificial intelligence.** *The Lancet. Digital health*
  Sadée, C., Testa, S., Barba, T., Hartmann, K., Schuessler, M., Thieme, A., Church, G. M., Okoye, I., Hernandez-Boussard, T., Hood, L., Shmulevich, I., Kuhl, E., Gevaert, et al
  2025: 100864
- **Single-cell multimodal analysis reveals tumor microenvironment predictive of treatment response in non-small cell lung cancer.** *Science advances*
  Zheng, Y., Sadée, C., Ozawa, M., Howitt, B. E., Gevaert, O.
  2025; 11 (21): eadu2151
- **Revealing cancer driver genes through integrative transcriptomic and epigenomic analyses with Moonlight.** *PLoS computational biology*
  Nourbakhsh, M., Zheng, Y., Noor, H., Chen, H., Akhuli, S., Tiberti, M., Gevaert, O., Papaleo, E.
  2025; 21 (4): e1012999
- **Towards a more inductive world for drug repurposing approaches** *NATURE MACHINE INTELLIGENCE*
  de la Fuente, J., Serrano, G., Veleiro, U., Casals, M., Vera, L., Pizurica, M., Gomez-Cebrian, N., Puchades-Carrasco, L., Pineda-Lucena, A., Ochoa, I., Vicent, S., Gevaert, O., Hernaez, et al
  2025
- **DUNE: a versatile neuroimaging encoder captures brain complexity across 3 major diseases: cancer, dementia, and schizophrenia.** *GigaScience*
  Barba, T., Bagley, B. A., Steyaert, S., Carrillo-Perez, F., Sadée, C., Iv, M., Gevaert, O.
  2025; 14
- **Synthetic multimodal data modelling for data imputation.** *Nature biomedical engineering*
  Carrillo-Perez, F., Pizurica, M., Marchal, K., Gevaert, O.
  2024
- **Digital profiling of gene expression from histology images with linearized attention.** *Nature communications*
  Pizurica, M., Zheng, Y., Carrillo-Perez, F., Noor, H., Yao, W., Wohlfart, C., Vladimirova, A., Marchal, K., Gevaert, O.
  2024; 15 (1): 9886
- **Generation of synthetic whole-slide image tiles of tumours from RNA-sequencing data via cascaded diffusion models.** *Nature biomedical engineering*
  Carrillo-Perez, F., Pizurica, M., Zheng, Y., Nandi, T. N., Madduri, R., Shen, J., Gevaert, O.
  2024
- **GeNNius: An ultrafast drug-target interaction inference method based on graph neural networks.** *Bioinformatics (Oxford, England)*
  Veleiro, U., de la Fuente, J., Serrano, G., Pizurica, M., Casals, M., Pineda-Lucena, A., Vicent, S., Ochoa, I., Gevaert, O., Hernaez, M.

2023

- **Synthetic whole-slide image tile generation with gene expression profile-infused deep generative models.** *Cell reports methods*
  Carrillo-Perez, F., Pizurica, M., Ozawa, M. G., Vogel, H., West, R. B., Kong, C. S., Herrera, L. J., Shen, J., Gevaert, O.
  2023; 3 (8): 100534

- **EpiMix is an integrative tool for epigenomic subtyping using DNA methylation.** *Cell reports methods*
  Zheng, Y., Jun, J., Brennan, K., Gevaert, O.
  2023; 3 (7): 100515

- **Spatial cellular architecture predicts prognosis in glioblastoma.** *Nature communications*
  Zheng, Y., Carrillo-Perez, F., Pizurica, M., Heiland, D. H., Gevaert, O.
  2023; 14 (1): 4122

- **SCOPE: predicting future diagnoses in office visits using electronic health records.** *Scientific reports*
  Mukherjee, P., Humbert-Droz, M., Chen, J. H., Gevaert, O.
  2023; 13 (1): 11005

- **Machine learning with multimodal data for COVID-19.** *Heliyon*
  Chen, W., Sá, R. C., Bai, Y., Napel, S., Gevaert, O., Lauderdale, D. S., Giger, M. L.
  2023; 9 (7): e17934

- **Whole slide imaging-based prediction of TP53 mutations identifies an aggressive disease phenotype in prostate cancer.** *Cancer research*
  Pizurica, M., Larmuseau, M., Van der Eecken, K., de Schaetzen van Brienen, L., Carrillo-Perez, F., Isphording, S., Lumen, N., Van Dorpe, J., Ost, P., Verbeke, S., Gevaert, O., Marchal, K.
  2023

- **Augmenting digital twins with federated learning in medicine.** *The Lancet. Digital health*
  Nagaraj, D., Khandelwal, P., Steyaert, S., Gevaert, O.
  2023; 5 (5): e251-e253

- **Augmenting digital twins with federated learning in medicine** *LANCET DIGITAL HEALTH*
  Nagaraj, D., Khandelwal, P., Steyaert, S., Gevaert, O.
  2023; 5 (5): E251-E253

- **Multimodal data fusion for cancer biomarker discovery with deep learning** *NATURE MACHINE INTELLIGENCE*
  Steyaert, S., Pizurica, M., Nagaraj, D., Khandelwal, P., Hernandez-Boussard, T., Gentles, A. J., Gevaert, O.
  2023

- **Multimodal data fusion for cancer biomarker discovery with deep learning.** *Nature machine intelligence*
  Steyaert, S., Pizurica, M., Nagaraj, D., Khandelwal, P., Hernandez-Boussard, T., Gentles, A. J., Gevaert, O.
  2023; 5 (4): 351-362

- **Multimodal deep learning to predict prognosis in adult and pediatric brain tumors.** *Communications medicine*
  Steyaert, S., Qiu, Y. L., Zheng, Y., Mukherjee, P., Vogel, H., Gevaert, O.
  2023; 3 (1): 44

- **A deep-learning algorithm to classify skin lesions from mpox virus infection.** *Nature medicine*
  Thieme, A. H., Zheng, Y., Machiraju, G., Sadee, C., Mittermaier, M., Gertler, M., Salinas, J. L., Srinivasan, K., Gyawali, P., Carrillo-Perez, F., Capodici, A., Uhlig, M., Habenicht, et al
  2023

- **Identifying key multifunctional components shared by critical cancer and normal liver pathways via SparseGMM** *CELL REPORTS METHODS*
  Bakr, S., Brennan, K., Mukherjee, P., Argemi, J., Hernaez, M., Gevaert, O.
  2023; 3 (1): 100392

- **Imaging genomics: data fusion in uncovering disease heritability.** *Trends in molecular medicine*
  Hartmann, K., Sadée, C. Y., Satwah, I., Carrillo-Perez, F., Gevaert, O.
  2022

- **Accurate detection of benign and malignant renal tumor subtypes with MethylBoostER: An epigenetic marker-driven learning framework.** *Science advances*
  Rossi, S. H., Newsham, I., Pita, S., Brennan, K., Park, G., Smith, C. G., Lach, R. P., Mitchell, T., Huang, J., Babbage, A., Warren, A. Y., Leppert, J. T., Stewart, et al
  2022; 8 (39): eabn9828

- **Disparities in dermatology AI performance on a diverse, curated clinical image set.** *Science advances*
  Daneshjou, R., Vodrahalli, K., Novoa, R. A., Jenkins, M., Liang, W., Rotemberg, V., Ko, J., Swetter, S. M., Bailey, E. E., Gevaert, O., Mukherjee, P., Phung, M., Yekrang, et al
  2022; 8 (32): eabq6147

- **A web-based app to provide personalized recommendations for COVID-19.** *Nature medicine*
  Thieme, A. H., Gertler, M., Mittermaier, M., Groschel, M. I., Chen, J. H., Piening, B., Benzler, J., Habenicht, D., Budach, V., Gevaert, O.
  2022

- **Strategies to Address the Lack of Labeled Data for Supervised Machine Learning Training With Electronic Health Records: Case Study for the Extraction of Symptoms From Clinical Notes.** *JMIR medical informatics*
  Humbert-Droz, M., Mukherjee, P., Gevaert, O.
  2022; 10 (3): e32903

- **Exploring approaches for predictive cancer patient digital twins: Opportunities for collaboration and innovation.** *Frontiers in digital health*
  Stahlberg, E. A., Abdel-Rahman, M., Aguilar, B., Asadpoure, A., Beckman, R. A., Borkon, L. L., Bryan, J. N., Cebulla, C. M., Chang, Y. H., Chatterjee, A., Deng, J., Dolatshahi, S., Gevaert, et al
  2022; 4: 1007784

- **AI-based analysis of CT images for rapid triage of COVID-19 patients.** *NPJ digital medicine*
  Xu, Q., Zhan, X., Zhou, Z., Li, Y., Xie, P., Zhang, S., Li, X., Yu, Y., Zhou, C., Zhang, L., Gevaert, O., Lu, G.
  2021; 4 (1): 75

- **CT-based Radiomic Signatures for Predicting Histopathologic Features in Head and Neck Squamous Cell Carcinoma.** *Radiology. Imaging cancer*
  Mukherjee, P., Cintra, M., Huang, C., Zhou, M., Zhu, S., Colevas, A. D., Fischbein, N., Gevaert, O.
  2020; 2 (3): e190039

- **A Shallow Convolutional Neural Network Predicts Prognosis of Lung Cancer Patients in Multi-Institutional CT-Image Data.** *Nature machine intelligence*
  Mukherjee, P., Zhou, M., Lee, E., Schicht, A., Balagurunathan, Y., Napel, S., Gillies, R., Wong, S., Thieme, A., Leung, A., Gevaert, O.
  2020; 2 (5): 274-282

- **A meta-learning approach for genomic survival analysis.** *Nature communications*
  Qiu, Y. L., Zheng, H. n., Devos, A. n., Selby, H. n., Gevaert, O. n.
  2020; 11 (1): 6350

- **Genomic data imputation with variational auto-encoders.** *GigaScience*
  Qiu, Y. L., Zheng, H. n., Gevaert, O. n.
  2020; 9 (8)

- **A shallow convolutional neural network predicts prognosis of lung cancer patients in multi-institutional computed tomography image datasets** *Nature Machine Intelligence*
  Mukherjee, P., Zhou, M., Lee, E., Schicht, A., Balagurunathan, Y., Napel, S., Gillies, R., Wong, S., Thieme, A., Leung, A., Gevaert, O.
  2020; 2 (5): 274–282

- **Imaging-AMARETTO: An Imaging Genomics Software Tool to Interrogate Multiomics Networks for Relevance to Radiography and Histopathology Imaging Biomarkers of Clinical Outcomes.** *JCO clinical cancer informatics*
  Gevaert, O. n., Nabian, M. n., Bakr, S. n., Everaert, C. n., Shinde, J. n., Manukyan, A. n., Liefeld, T. n., Tabor, T. n., Xu, J. n., Lupberger, J. n., Haas, B. J., Baumert, T. F., Hernaez, et al
  2020; 4: 421–35

- **Development of a DNA Methylation-Based Diagnostic Signature to Distinguish Benign Oncocytoma From Renal Cell Carcinoma.** *JCO precision oncology*
  Brennan, K. n., Metzner, T. J., Kao, C. S., Massie, C. E., Stewart, G. D., Haile, R. W., Brooks, J. D., Hitchins, M. P., Leppert, J. T., Gevaert, O. n.

2020; 4

- **Whole slide images reflect DNA methylation patterns of human tumors.** *NPJ genomic medicine*
  Zheng, H. n., Momeni, A. n., Cedoz, P. L., Vogel, H. n., Gevaert, O. n.
  2020; 5: 11
- **The impact of DNA methylation on the cancer proteome.** *PLoS computational biology*
  Magzoub, M. M., Prunello, M., Brennan, K., Gevaert, O.
  2019; 15 (7): e1007245
- **Deep learning with multimodal representation for pancancer prognosis prediction.** *Bioinformatics (Oxford, England)*
  Cheerla, A., Gevaert, O.
  2019; 35 (14): i446-i454
- **Development and validation of radiomic signatures of head and neck squamous cell carcinoma molecular features and subtypes.** *EBioMedicine*
  Huang, C. n., Cintra, M. n., Brennan, K. n., Zhou, M. n., Colevas, A. D., Fischbein, N. n., Zhu, S. n., Gevaert, O. n.
  2019
- **Benchmark of long non-coding RNA quantification for RNA sequencing of cancer samples.** *GigaScience*
  Zheng, H. n., Brennan, K. n., Hernaez, M. n., Gevaert, O. n.
  2019; 8 (12)
- **MethylMix 2.0: an R package for identifying DNA methylation genes.** *Bioinformatics (Oxford, England)*
  Cedoz, P., Prunello, M., Brennan, K., Gevaert, O.
  2018
- **Machine Learning Identifies Stemness Features Associated with Oncogenic Dedifferentiation** *CELL*
  Malta, T. M., Sokolov, A., Gentles, A. J., Burzykowski, T., Poisson, L., Weinstein, J. N., Kaminska, B., Huelsken, J., Omberg, L., Gevaert, O., Colaprico, A., Czerwinska, P., Mazurek, et al
  2018; 173 (2): 338-+
- **Genomic, Pathway Network, and Immunologic Features Distinguishing Squamous Carcinomas** *CELL REPORTS*
  Campbell, J. D., Yau, C., Bowlby, R., Liu, Y., Brennan, K., Fan, H., Taylor, A. M., Wang, C., Walter, V., Akbani, R., Byers, L., Creighton, C. J., Coarfa, et al
  2018; 23 (1): 194-+
- **Module Analysis Captures Pancancer Genetically and Epigenetically Deregulated Cancer Driver Genes for Smoking and Antiviral Response.** *EBioMedicine*
  Champion, M. n., Brennan, K. n., Croonenborghs, T. n., Gentles, A. J., Pochet, N. n., Gevaert, O. n.
  2018; 27: 156–66
- **Intestinal Enteroendocrine Lineage Cells Possess Homeostatic and Injury-Inducible Stem Cell Activity.** *Cell stem cell*
  Yan, K. S., Gevaert, O., Zheng, G. X., Anchang, B., Probert, C. S., Larkin, K. A., Davies, P. S., Cheng, Z. F., Kaddis, J. S., Han, A., Roelf, K., Calderon, R. I., Cynn, et al
  2017; 21 (1): 78-90.e6
- **Identification of an atypical etiological head and neck squamous carcinoma subtype featuring the CpG island methylator phenotype.** *EBioMedicine*
  Brennan, K., Koenig, J. L., Gentles, A. J., Sunwoo, J. B., Gevaert, O.
  2017; 17: 223-236
- **Noninvasive radiomics signature based on quantitative analysis of computed tomography images as a surrogate for microvascular invasion in hepatocellular carcinoma: a pilot study.** *Journal of medical imaging (Bellingham, Wash.)*
  Bakr, S. n., Echegaray, S. n., Shah, R. n., Kamaya, A. n., Louie, J. n., Napel, S. n., Kothary, N. n., Gevaert, O. n.
  2017; 4 (4): 041303
- **Magnetic resonance image features identify glioblastoma phenotypic subtypes with distinct molecular pathway activities.** *Science translational medicine*
  Itakura, H., Achrol, A. S., Mitchell, L. A., Loya, J. J., Liu, T., Westbroek, E. M., Feroze, A. H., Rodriguez, S., Echegaray, S., Azad, T. D., Yeom, K. W., Napel, S., Rubin, et al

2015; 7 (303): 303ra138-?

- **Pancancer analysis of DNA methylation-driven genes using MethylMix** *GENOME BIOLOGY*
  Gevaert, O., Tibshirani, R., Plevritis, S. K.
  2015; 16

- **CaMoDi: a new method for cancer module discovery** *BMC GENOMICS*
  Manolakos, A., Ochoa, I., Venkat, K., Goldsmith, A. J., Gevaert, O.
  2014; 15

- **Glioblastoma Multiforme: Exploratory Radiogenomic Analysis by Using Quantitative Image Features** *RADIOLOGY*
  Gevaert, O., Mitchell, L. A., Achrol, A. S., Xu, J., Echegaray, S., Steinberg, G. K., Cheshier, S. H., Napel, S., Zaharchuk, G., Plevritis, S. K.
  2014; 273 (1): 168-174

- **Identifying master regulators of cancer and their downstream targets by integrating genomic and epigenomic features.** *Pacific Symposium on Biocomputing. Pacific Symposium on Biocomputing*
  Gevaert, O., Plevritis, S.
  2013: 123-134

- **Non-Small Cell Lung Cancer: Identifying Prognostic Imaging Biomarkers by Leveraging Public Gene Expression Microarray Data-Methods and Preliminary Results** *RADIOLOGY*
  Gevaert, O., Xu, J., Hoang, C. D., Leung, A. N., Xu, Y., Quon, A., Rubin, D. L., Napel, S., Plevritis, S. K.
  2012; 264 (2): 387-396

- **Ancestry-Specific Prognostic DNA Methylation Signatures in Glioblastoma Reveal Population-Specific Epigenetic Risk Stratification**
  Noor, H., Tsavachidis, S., Peng, B., Amos, C., Bernstein, J. L., Walsh, K., Ostrom, Q. T., Huse, J., Gevaert, O., Bondy, M.
  OXFORD UNIV PRESS INC.2026

- **A hierarchical clinical fusion transformer model for personalized opioid treatment: Development and validation in diabetic surgical patients.** *medRxiv : the preprint server for health sciences*
  Naderalvojoud, B., Sutjiadi, B. J., Koul, A., Curtin, C., Gevaert, O., Hernandez-Boussard, T.
  2026

- **Machine learning-based cardiovascular risk prediction in systemic lupus erythematosus: development and internal validation of a prognostic model.** *Journal of autoimmunity*
  Benonnier, N., Robert, M., Sousa Alves, A., Catella, J., Gevaert, O., Jamilloux, Y., Sève, P., Reynaud, Q., Goncalves, D., Hot, A., Barba, T.
  2026; 161: 103561

- **Deep-learning CT biomarker improves early efficacy detection in simulated randomized phase II NSCLC trials**
  Sako, C., Kurland, B. F., Schmidt, T. G., Owen, D. H., Patel, A. A., Love, N. C., Gevaert, O., Simon, G. R., Parikh, R. B., Jordan, P.
  AMER ASSOC CANCER RESEARCH.2026

- **SAGE-FM: A lightweight and interpretable spatial transcriptomics foundation model.** *ArXiv*
  Zhan, X., Xu, J., Zheng, Y., Good, Z., Gevaert, O.
  2026

- **The ADAPT learning cancer treatment system: ARPA-H's initiative to revolutionize cancer therapy.** *Cancer cell*
  Bild, A. H., Sangar, M. C., McQuerry, J. A., Ideker, T., Kopetz, S., Carey, L., Nath, A., Marcus, D., Regier, A., Rashid, N., Barzilay, R., Winer, E., Salgia, et al
  2026

- **Deep-Learning Serial CT Prediction of Survival in Immunotherapy-Treated Non-Small Cell Lung Cancer.** *JAMA network open*
  Sako, C., Kurland, B. F., Schmidt, T. G., He, J., De Groot, M., Patel, A. A., Owen, D. H., Amini, A., Curti, B. D., Kelly, R. J., Page, R. D., Swalduz, A., Beregi, et al
  2026; 9 (1): e2555759

- **Attention-based multiple instance learning predicts CAR T cell therapy outcomes from infusion product single-cell RNA-seq data and identifies engineering targets in large B cell lymphoma**
  Rodrigues, K., Tsui, K., Zhan, X., Chen, Y., Mo, K., Mackall, C., Miklos, D., Gevaert, O., Good, Z.
  ELSEVIER.2025: 5897-5898

- **Response to anti-angiogenic therapy is associated with AIMP protein family expression in glioblastoma and lower-grade gliomas.** *Cancer research communications*
  Noor, H., Zheng, Y., Itakura, H., Gevaert, O.
  2025
- **A 20-feature radiomic signature of triple-negative breast cancer identifies patients at high risk of death.** *NPJ breast cancer*
  Noor, H., Zheng, Y., Mantz, A. B., Zhou, R., Kozlov, A., DeMartini, W. B., Chen, S. T., Okamoto, S., Ikeda, D. M., Telli, M. L., Kurian, A. W., Ford, J. M., Vinayak, et al
  2025; 11 (1): 79
- **Validation of a Deep Learning Serial Computed Tomography Response Biomarker for Predicting Overall Survival in Metastatic Kidney Cancer Treated with Immune Checkpoint Inhibitors**
  Sako, C., Schmidt, T. G., Lourenco, B. G., Sewaramani, K., McCall, R., Beasley, R., Patel, A. A., Owen, D. H., Amini, A., Kelly, R. J., Page, R. D., Beregi, J., Sanchez, et al
  AMER ASSOC CANCER RESEARCH.2025: A029
- **Evaluating Vision and Pathology Foundation Models for Computational Pathology: A Comprehensive Benchmark Study.** *Research square*
  Gevaert, O., Bareja, R., Carrillo-Perez, F., Zheng, Y., Pizurica, M., Nandi, T., Shen, J., Madduri, R.
  2025
- **Leveraging multiple labeled datasets for the automated annotation of single-cell RNA and ATAC data.** *Computational and structural biotechnology journal*
  Sancho-Zamora, J., Kanhirodan, A., Garrote, X., Rojas, J. M., Gevaert, O., Hernaez, M., Serrano, G., Ochoa, I.
  2025; 27: 2863-2870
- **AI-based identification of head impact locations, speeds, and force based on head kinematics simulations.** *IEEE transactions on bio-medical engineering*
  Zhan, X., Liu, Y., Cecchi, N. J., Towns, J., Callan, A. A., Gevaert, O., Zeineh, M. M., Camarillo, D. B.
  2025; PP
- **Integration of MRI radiomics and germline genetics to predict the IDH mutation status of gliomas.** *NPJ precision oncology*
  Nakase, T., Henderson, G. A., Barba, T., Bareja, R., Guerra, G., Zhao, Q., Francis, S. S., Gevaert, O., Kachuri, L.
  2025; 9 (1): 187
- **A Data-Centric Approach to Deep Learning for Brain Metastasis Analysis at MRI.** *Radiology*
  Topff, L., Petrychenko, L., Jain, N., Lingier, S., Bertels, J., Astudillo, P., Prosec, M., Menéndez Fernández-Miranda, P., Gevaert, O., Smits, M., Derks, S., Verhaak, E., Hanssens, et al
  2025; 315 (3): e242416
- **Multimodal Image Dataset for AI-Based Skin Cancer (MIDAS) Benchmarking.** *NEJM AI*
  Chiou, A. S., Omiye, J. A., Gui, H., Swetter, S. M., Ko, J. M., Gastman, B., Arbesman, J., Cai, Z. R., Gevaert, O., Sadée, C., Rotemberg, V. M., Han, S. S., Tschandl, et al
  2025; 2 (6): AIdbp2400732
- **Clinico-radiographic predictors of overall survival in stage II-III pancreatic cancer.**
  Xu, Q., Toesca, D., Vitzthum, L., Jamalian, A., Schueler, E., Alkim, E., Baclay, J., Chang, D., Gevaert, O., Fisher, G. A., Itakura, H.
  LIPPINCOTT WILLIAMS & WILKINS.2025: e16457
- **Evaluating Vision and Pathology Foundation Models for Computational Pathology: A Comprehensive Benchmark Study.** *medRxiv : the preprint server for health sciences*
  Bareja, R., Carrillo-Perez, F., Zheng, Y., Pizurica, M., Nandi, T. N., Shen, J., Madduri, R., Gevaert, O.
  2025
- **Response to anti-angiogenic therapy is affected by AIMP protein family activity in glioblastoma and lower-grade gliomas.** *bioRxiv : the preprint server for biology*
  Noor, H., Zheng, Y., Itakura, H., Gevaert, O.
  2025
- **Reliability-enhanced data cleaning in biomedical machine learning using inductive conformal prediction.** *PLoS computational biology*
  Zhan, X., Xu, Q., Zheng, Y., Lu, G., Gevaert, O.
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