

# Giovanni Traverso

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1365748/publications.pdf>

Version: 2024-02-01

124  
papers

10,449  
citations

61857

43  
h-index

33814

99  
g-index

131  
all docs

131  
docs citations

131  
times ranked

12508  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Genes Expressed in Human Tumor Endothelium. <i>Science</i> , 2000, 289, 1197-1202.  | 6.0  | 1,733     |
| 2  | Transforming single DNA molecules into fluorescent magnetic particles for detection and enumeration of genetic variations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 8817-8822. | 3.3  | 744       |
| 3  | Germline mutations of the gene encoding bone morphogenetic protein receptor 1A in juvenile polyposis. <i>Nature Genetics</i> , 2001, 28, 184-187.   | 9.4  | 591       |
| 4  | Bioplastics for a circular economy. <i>Nature Reviews Materials</i> , 2022, 7, 117-137.   | 23.3 | 550       |
| 5  | An ingestible bacterial-electronic system to monitor gastrointestinal health. <i>Science</i> , 2018, 360, 915-918.  | 6.0  | 380       |
| 6  | Detection of APC Mutations in Fecal DNA from Patients with Colorectal Tumors. <i>New England Journal of Medicine</i> , 2002, 346, 311-320.  | 13.9 | 320       |
| 7  | Top-down morphogenesis of colorectal tumors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 2640-2645.  | 3.3  | 319       |
| 8  | An inflammation-targeting hydrogel for local drug delivery in inflammatory bowel disease. <i>Science Translational Medicine</i> , 2015, 7, 300ra128.  | 5.8  | 288       |
| 9  | An ingestible self-orienting system for oral delivery of macromolecules. <i>Science</i> , 2019, 363, 611-615.   | 6.0  | 287       |
| 10 | A pH-responsive supramolecular polymer gel as an enteric elastomer for use in gastric devices. <i>Nature Materials</i> , 2015, 14, 1065-1071.   | 13.3 | 268       |
| 11 | Evolution of macromolecular complexity in drug delivery systems. <i>Nature Reviews Chemistry</i> , 2017, 1, .   | 13.8 | 233       |
| 12 | Nanotechnology approaches for global infectious diseases. <i>Nature Nanotechnology</i> , 2021, 16, 369-384.   | 15.6 | 232       |
| 13 | Whole-Exome Sequencing Analyses of Inflammatory Bowel Disease-Associated Colorectal Cancers. <i>Gastroenterology</i> , 2016, 150, 931-943.  | 0.6  | 208       |
| 14 | Oral, ultra-long-lasting drug delivery: Application toward malaria elimination goals. <i>Science Translational Medicine</i> , 2016, 8, 365ra157.  | 5.8  | 181       |
| 15 | Development of an oral once-weekly drug delivery system for HIV antiretroviral therapy. <i>Nature Communications</i> , 2018, 9, 2.  | 5.8  | 180       |
| 16 | Three Classes of Genes Mutated In Colorectal Cancers with Chromosomal Instability. <i>Cancer Research</i> , 2004, 64, 2998-3001.  | 0.4  | 174       |
| 17 | Ingestible hydrogel device. <i>Nature Communications</i> , 2019, 10, 493.   | 5.8  | 168       |
| 18 | A luminal unfolding microneedle injector for oral delivery of macromolecules. <i>Nature Medicine</i> , 2019, 25, 1512-1518.   | 15.2 | 167       |

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|----|--|------|-----------|
| 19 | Prolonged energy harvesting for ingestible devices. <i>Nature Biomedical Engineering</i> , 2017, 1, .  | 11.6 | 148       |
| 20 | Ingestible electronics for diagnostics and therapy. <i>Nature Reviews Materials</i> , 2019, 4, 83-98.  | 23.3 | 146       |
| 21 | Detection of proximal colorectal cancers through analysis of faecal DNA. <i>Lancet, The</i> , 2002, 359, 403-404.  | 6.3  | 142       |
| 22 | Nanoparticulate drug delivery systems targeting inflammation for treatment of inflammatory bowel disease. <i>Nano Today</i> , 2017, 16, 82-96.               | 6.2  | 136       |
| 23 | Microneedles for Drug Delivery via the Gastrointestinal Tract. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 362-367.                               | 1.6  | 133       |
| 24 | Flexible piezoelectric devices for gastrointestinal motility sensing. <i>Nature Biomedical Engineering</i> , 2017, 1, 807-817.                               | 11.6 | 127       |
| 25 | Triggerable tough hydrogels for gastric resident dosage forms. <i>Nature Communications</i> , 2017, 8, 124.  | 5.8  | 106       |
| 26 | Ultrasound-mediated gastrointestinal drug delivery. <i>Science Translational Medicine</i> , 2015, 7, 310ra168.   | 5.8  | 95        |
| 27 | 3D-Printed Gastric Resident Electronics. <i>Advanced Materials Technologies</i> , 2019, 4, 1800490.  | 3.0  | 72        |
| 28 | Light-degradable hydrogels as dynamic triggers for gastrointestinal applications. <i>Science Advances</i> , 2020, 6, eaay0065.                               | 4.7  | 71        |
| 29 | A microneedle platform for buccal macromolecule delivery. <i>Science Advances</i> , 2021, 7, .   | 4.7  | 70        |
| 30 | “Inert” ingredients in oral medications. <i>Science Translational Medicine</i> , 2019, 11, .   | 5.8  | 68        |
| 31 | Foundations of gastrointestinal-based drug delivery and future developments. <i>Nature Reviews Gastroenterology and Hepatology</i> , 2022, 19, 219-238.      | 8.2  | 66        |
| 32 | Computationally guided high-throughput design of self-assembling drug nanoparticles. <i>Nature Nanotechnology</i> , 2021, 16, 725-733.                       | 15.6 | 64        |
| 33 | Oral delivery of systemic monoclonal antibodies, peptides and small molecules using gastric auto-injectors. <i>Nature Biotechnology</i> , 2022, 40, 103-109. | 9.4  | 64        |
| 34 | Bioinspired kirigami metasurfaces as assistive shoe grips. <i>Nature Biomedical Engineering</i> , 2020, 4, 778-786.  | 11.6 | 61        |
| 35 | Ultrahigh speed en face OCT capsule for endoscopic imaging. <i>Biomedical Optics Express</i> , 2015, 6, 1146.  | 1.5  | 60        |
| 36 | Perspective: Special delivery for the gut. <i>Nature</i> , 2015, 519, S19-S19.   | 13.7 | 59        |

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|----|--|------|-----------|
| 37 | Enabling deep-tissue networking for miniature medical devices. , 2018, , .   |      | 59        |
| 38 | Microbial therapeutics: New opportunities for drug delivery. <i>Journal of Experimental Medicine</i> , 2019, 216, 1005-1009.   | 4.2  | 57        |
| 39 | Powering Implantable and Ingestible Electronics. <i>Advanced Functional Materials</i> , 2021, 31, 2009289.   | 7.8  | 57        |
| 40 | Dynamic omnidirectional adhesive microneedle system for oral macromolecular drug delivery. <i>Science Advances</i> , 2022, 8, eabk1792.  | 4.7  | 54        |
| 41 | Kirigami-inspired stents for sustained local delivery of therapeutics. <i>Nature Materials</i> , 2021, 20, 1085-1092.  | 13.3 | 52        |
| 42 | Temperature-responsive biometamaterials for gastrointestinal applications. <i>Science Translational Medicine</i> , 2019, 11, .   | 5.8  | 51        |
| 43 | Oral mRNA delivery using capsule-mediated gastrointestinal tissue injections. <i>Matter</i> , 2022, 5, 975-987.  | 5.0  | 48        |
| 44 | Endoscopically Injectable Shearâ€Thinning Hydrogels Facilitating Polyp Removal. <i>Advanced Science</i> , 2019, 6, 1901041.   | 5.6  | 47        |
| 45 | Ultrasound-Mediated Delivery of RNA to Colonic Mucosa of Liveâ€Mice. <i>Gastroenterology</i> , 2017, 152, 1151-1160.  | 0.6  | 46        |
| 46 | Wireless Power Transfer to Millimeter-Sized Gastrointestinal Electronics Validated in a Swine Model. <i>Scientific Reports</i> , 2017, 7, 46745.   | 1.6  | 45        |
| 47 | Oral delivery of biologics using drug-device combinations. <i>Current Opinion in Pharmacology</i> , 2017, 36, 8-13.  | 1.7  | 41        |
| 48 | Genotype-targeted local therapy of glioma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E8388-E8394.  | 3.3  | 40        |
| 49 | Clinical Opportunities for Continuous Biosensing and Closed-Loop Therapies. <i>Trends in Chemistry</i> , 2020, 2, 319-340.   | 4.4  | 39        |
| 50 | Changing the pill: developments toward the promise of an ultra-long-acting gastroretentive dosage form. <i>Expert Opinion on Drug Delivery</i> , 2018, 15, 1189-1198.  | 2.4  | 38        |
| 51 | A gastric resident drug delivery system for prolonged gram-level dosing of tuberculosis treatment. <i>Science Translational Medicine</i> , 2019, 11, .   | 5.8  | 38        |
| 52 | Oral Biologic Delivery: Advances Toward Oral Subunit, DNA, and mRNA Vaccines and the Potential for Mass Vaccination During Pandemics. <i>Annual Review of Pharmacology and Toxicology</i> , 2021, 61, 517-540. | 4.2  | 38        |
| 53 | Hyper-recombination and genetic instability in BLM-deficient epithelial cells. <i>Cancer Research</i> , 2003, 63, 8578-81.   | 0.4  | 38        |
| 54 | Machine Learning Uncovers Food- and Excipient-Drug Interactions. <i>Cell Reports</i> , 2020, 30, 3710-3716.e4.   | 2.9  | 37        |

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|----|---|------|-----------|
| 55 | Photometric stereo endoscopy. <i>Journal of Biomedical Optics</i> , 2013, 18, 1.  | 1.4  | 36        |
| 56 | Gastrointestinal synthetic epithelial linings. <i>Science Translational Medicine</i> , 2020, 12, .  | 5.8  | 36        |
| 57 | Ingestible transiently anchoring electronics for microstimulation and conductive signaling. <i>Science Advances</i> , 2020, 6, eaaz0127.  | 4.7  | 35        |
| 58 | Robotically handled whole-tissue culture system for the screening of oral drug formulations. <i>Nature Biomedical Engineering</i> , 2020, 4, 544-559.   | 11.6 | 35        |
| 59 | Simple battery armor to protect against gastrointestinal injury from accidental ingestion. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 16490-16495. | 3.3  | 33        |
| 60 | A once-a-month oral contraceptive. <i>Science Translational Medicine</i> , 2019, 11, .  | 5.8  | 33        |
| 61 | Low-cost gastrointestinal manometry via silicone liquid-metal pressure transducers resembling a quipu. <i>Nature Biomedical Engineering</i> , 2022, 6, 1092-1104.   | 11.6 | 30        |
| 62 | Local Targeting of NAD <sup>+</sup> Salvage Pathway Alters the Immune Tumor Microenvironment and Enhances Checkpoint Immunotherapy in Glioblastoma. <i>Cancer Research</i> , 2020, 80, 5024-5034.           | 0.4  | 28        |
| 63 | Physiologic Status Monitoring via the Gastrointestinal Tract. <i>PLoS ONE</i> , 2015, 10, e0141666.   | 1.1  | 28        |
| 64 | Circumferential optical coherence tomography angiography imaging of the swine esophagus using a micromotor balloon catheter. <i>Biomedical Optics Express</i> , 2016, 7, 2927.                              | 1.5  | 27        |
| 65 | A Janus Mucoadhesive and Omniphobic Device for Gastrointestinal Retention. <i>Advanced Healthcare Materials</i> , 2016, 5, 1141-1146.   | 3.9  | 27        |
| 66 | Low-frequency ultrasound for drug delivery in the gastrointestinal tract. <i>Expert Opinion on Drug Delivery</i> , 2016, 13, 1045-1048.   | 2.4  | 27        |
| 67 | Devices for drug delivery in the gastrointestinal tract: A review of systems physically interacting with the mucosa for enhanced delivery. <i>Advanced Drug Delivery Reviews</i> , 2021, 177, 113926.       | 6.6  | 26        |
| 68 | Residency Training and International Medical Graduates. <i>JAMA - Journal of the American Medical Association</i> , 2012, 308, 2193.  | 3.8  | 25        |
| 69 | Multicolor in vitro translation. <i>Nature Biotechnology</i> , 2003, 21, 1093-1097.   | 9.4  | 24        |
| 70 | Past, Present, and Future Drug Delivery Systems for Antiretrovirals. <i>Journal of Pharmaceutical Sciences</i> , 2016, 105, 3471-3482.  | 1.6  | 23        |
| 71 | A rapidly deployable individualized system for augmenting ventilator capacity. <i>Science Translational Medicine</i> , 2020, 12, .  | 5.8  | 23        |
| 72 | Quantifying the Value of Orally Delivered Biologic Therapies: A Cost-Effectiveness Analysis of Oral Semaglutide. <i>Journal of Pharmaceutical Sciences</i> , 2019, 108, 3138-3145.                          | 1.6  | 21        |

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|----|--|-----|-----------|
| 73 | Delivery of therapeutic carbon monoxide by gas-entrapping materials. <i>Science Translational Medicine</i> , 2022, 14, .   | 5.8 | 21        |
| 74 | Mobile Robotic Platform for Contactless Vital Sign Monitoring. <i>Cyborg and Bionic Systems</i> , 2022, .  | 3.7 | 20        |
| 75 | Development of oil-based gels as versatile drug delivery systems for pediatric applications. <i>Science Advances</i> , 2022, 8, .  | 4.7 | 19        |
| 76 | Of microneedles and ultrasound: Physical modes of gastrointestinal macromolecule delivery. <i>Tissue Barriers</i> , 2016, 4, e1150235.   | 1.6 | 18        |
| 77 | Electroceuticals in the Gastrointestinal Tract. <i>Trends in Pharmacological Sciences</i> , 2020, 41, 960-976.   | 4.0 | 18        |
| 78 | Multi-MHz MEMS-VCSEL swept-source optical coherence tomography for endoscopic structural and angiographic imaging with miniaturized brushless motor probes. <i>Biomedical Optics Express</i> , 2021, 12, 2384.         | 1.5 | 18        |
| 79 | Injection Molded Autoclavable, Scalable, Conformable (iMASC) system for aerosol-based protection: a prospective single-arm feasibility study. <i>BMJ Open</i> , 2020, 10, e039120.                                     | 0.8 | 17        |
| 80 | Heparinâ€Coated Albumin Nanoparticles for Drug Combination in Targeting Inflamed Intestine. <i>Advanced Healthcare Materials</i> , 2020, 9, e2000536.  | 3.9 | 17        |
| 81 | Development of a long-acting direct-acting antiviral system for hepatitis C virus treatment in swine. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 11987-11994. | 3.3 | 15        |
| 82 | Challenges in IBD Research: Novel Technologies. <i>Inflammatory Bowel Diseases</i> , 2019, 25, S24-S30.  | 0.9 | 14        |
| 83 | Assessment of the Acceptability and Feasibility of Using Mobile Robotic Systems for Patient Evaluation. <i>JAMA Network Open</i> , 2021, 4, e210667.   | 2.8 | 13        |
| 84 | Prevention of diabetes-associated fibrosis: Strategies in FcRn-targeted nanosystems for oral drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2021, 175, 113778.   | 6.6 | 13        |
| 85 | Defining optimal permeant characteristics for ultrasound-mediated gastrointestinal delivery. <i>Journal of Controlled Release</i> , 2017, 268, 113-119.  | 4.8 | 12        |
| 86 | Ultra-rapid drug delivery in the oral cavity using ultrasound. <i>Journal of Controlled Release</i> , 2019, 304, 1-6.  | 4.8 | 12        |
| 87 | Thinking green: modelling respirator reuse strategies to reduce cost and waste. <i>BMJ Open</i> , 2021, 11, e048687.   | 0.8 | 12        |
| 88 | Towards wireless capsule endoscopic ultrasound (WCEU). , 2014, , .   |     | 10        |
| 89 | Engineering precision. <i>Science Translational Medicine</i> , 2015, 7, 289ed6.  | 5.8 | 10        |
| 90 | Making the case: developing innovative adherence solutions for the treatment of tuberculosis. <i>BMJ Global Health</i> , 2019, 4, e001323.   | 2.0 | 10        |

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|-----|--|------|-----------|
| 91  | Caffeine-catalyzed gels. <i>Biomaterials</i> , 2018, 170, 127-135.   | 5.7  | 9         |
| 92  | Implantable system for chronotherapy. <i>Science Advances</i> , 2021, 7, eabj4624.   | 4.7  | 9         |
| 93  | Convergence for Translation: Drug Delivery Research in Multidisciplinary Teams. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 4156-4163.  | 7.2  | 8         |
| 94  | Scalable Gastric Resident Systems for Veterinary Application. <i>Scientific Reports</i> , 2018, 8, 11816.  | 1.6  | 8         |
| 95  | Patient and Health Care Worker Perceptions of Communication and Ability to Identify Emotion When Wearing Standard and Transparent Masks. <i>JAMA Network Open</i> , 2021, 4, e2135386.               | 2.8  | 7         |
| 96  | Prospective Evaluation of the Transparent, Elastomeric, Adaptable, Long-Lasting (TEAL) Respirator. <i>ACS Pharmacology and Translational Science</i> , 2020, 3, 1076-1082.                           | 2.5  | 6         |
| 97  | An automated all-in-one system for carbohydrate tracking, glucose monitoring, and insulin delivery. <i>Journal of Controlled Release</i> , 2022, 343, 31-42.   | 4.8  | 6         |
| 98  | Closed-Loop Region of Interest Enabling High Spatial and Temporal Resolutions in Object Detection and Tracking via Wireless Camera. <i>IEEE Access</i> , 2021, 9, 87340-87350.                       | 2.6  | 5         |
| 99  | Dynamic Monitoring of Systemic Biomarkers with Gastric Sensors. <i>Advanced Science</i> , 2021, 8, e2102861.   | 5.6  | 5         |
| 100 | Preferences of Persons With or at Risk for Hepatitis C for Long-Acting Treatments. <i>Clinical Infectious Diseases</i> , 2022, 75, 3-10.   | 2.9  | 4         |
| 101 | Ex Vivo and In Vivo Imaging Study of Ultrasound Capsule Endoscopy. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2020, 14, 021005.   | 0.4  | 4         |
| 102 | Transmitting location. <i>Nature Biomedical Engineering</i> , 2017, 1, 684-685.  | 11.6 | 3         |
| 103 | From Molecule to Patient: A Biotech Perspective. <i>Clinical Pharmacology and Therapeutics</i> , 2020, 107, 65-67.   | 2.3  | 3         |
| 104 | Personalized Radiation Attenuating Materials for Gastrointestinal Mucosal Protection. <i>Advanced Science</i> , 2021, 8, 2100510.  | 5.6  | 3         |
| 105 | Zero-Crossing-Based Bio-Engineered Sensor. , 2021, , .   |      | 3         |
| 106 | Identification of bile acid and fatty acid species as candidate rapidly bactericidal agents for topical treatment of gonorrhoea. <i>Journal of Antimicrobial Chemotherapy</i> , 2021, 76, 2569-2577. | 1.3  | 3         |
| 107 | System for clinical photometric stereo endoscopy. <i>Proceedings of SPIE</i> , 2014, , .   | 0.8  | 2         |
| 108 | Translation durch Konvergenz: Drug Delivery-Forschung in multidisziplinären Teams. <i>Angewandte Chemie</i> , 2018, 130, 4226-4234.  | 1.6  | 2         |

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|-----|---|-----|-----------|
| 109 | The potential of porcine ex vivo platform for intestinal permeability screening of FcRn-targeted drugs. <i>European Journal of Pharmaceutics and Biopharmaceutics</i> , 2021, 162, 99-104.                  | 2.0 | 2         |
| 110 | Why some fish don't tan. <i>Science Translational Medicine</i> , 2015, 7, .   | 5.8 | 1         |
| 111 | Platform for the Delivery of Unformulated RNA In Vivo. <i>Journal of Pharmaceutical Sciences</i> , 2021, , .  | 1.6 | 1         |
| 112 | Respirators in Healthcare: Material, Design, Regulatory, Environmental, and Economic Considerations for Clinical Efficacy. <i>Global Challenges</i> , 2022, 6, .  | 1.8 | 1         |
| 113 | Drug Delivery: Heparin-Coated Albumin Nanoparticles for Drug Combination in Targeting Inflamed Intestine ( <i>Adv. Healthcare Mater.</i> 16/2020). <i>Advanced Healthcare Materials</i> , 2020, 9, 2070052. | 3.9 | 0         |
| 114 | Historical Evolution and Provider Awareness of Inactive Ingredients in Oral Medications. <i>Pharmaceutical Research</i> , 2020, 37, 234.  | 1.7 | 0         |
| 115 | A sticky situation helps colitis. <i>Science Translational Medicine</i> , 2015, 7, .  | 5.8 | 0         |
| 116 | AIRE-ing out the gut. <i>Science Translational Medicine</i> , 2015, 7, .  | 5.8 | 0         |
| 117 | A soothing MSC-based ulcer treatment. <i>Science Translational Medicine</i> , 2015, 7, .  | 5.8 | 0         |
| 118 | A self-propelled colon scope. <i>Science Translational Medicine</i> , 2015, 7, .  | 5.8 | 0         |
| 119 | Protease inhibitor passes oral exam. <i>Science Translational Medicine</i> , 2015, 7, .   | 5.8 | 0         |
| 120 | Eating at the right time. <i>Science Translational Medicine</i> , 2016, 8, .  | 5.8 | 0         |
| 121 | Linked in: Cholesterol connects oligos to liver. <i>Science Translational Medicine</i> , 2016, 8, .   | 5.8 | 0         |
| 122 | Abstract 127: The genomic landscapes of inflammatory bowel disease-associated colorectal cancers. , 2016, , .   |     | 0         |
| 123 | Thinking Green: Respirator Reuse Strategies to Reduce Cost and Waste. <i>SSRN Electronic Journal</i> , 0, , .   | 0.4 | 0         |
| 124 | A Retractable Six-Prong Laparoscopic Grasper for Laparoscopic Myomectomy. <i>Journal of Medical Devices, Transactions of the ASME</i> , 2022, 16, .   | 0.4 | 0         |