

# Balázs Gulyás

## List of Publications by Year in descending order

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Version: 2024-02-01

92  
papers

4,819  
citations

147566

31  
h-index

98622

67  
g-index

96  
all docs

96  
docs citations

96  
times ranked

9904  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | The gut microbiota influences blood-brain barrier permeability in mice. <i>Science Translational Medicine</i> , 2014, 6, 263ra158.  | 5.8 | 1,589     |
| 2  | The gut microbiota influences skeletal muscle mass and function in mice. <i>Science Translational Medicine</i> , 2019, 11, .  | 5.8 | 271       |
| 3  | 3D Deep Learning on Medical Images: A Review. <i>Sensors</i> , 2020, 20, 5097.  | 2.1 | 268       |
| 4  | Nanoparticles in practice for molecular-imaging applications: An overview. <i>Acta Biomaterialia</i> , 2016, 41, 1-16.  | 4.1 | 175       |
| 5  | Activated MAO-B in the brain of Alzheimer patients, demonstrated by [ <sup>11</sup> C]-l-deprenyl using whole hemisphere autoradiography. <i>Neurochemistry International</i> , 2011, 58, 60-68.  | 1.9 | 171       |
| 6  | Mushroom-Derived Carbon Dots for Toxic Metal Ion Detection and as Antibacterial and Anticancer Agents. <i>ACS Applied Nano Materials</i> , 2020, 3, 5910-5919.  | 2.4 | 146       |
| 7  | Neuronal correlates of real and illusory contour perception: functional anatomy with PET. <i>European Journal of Neuroscience</i> , 1999, 11, 4024-4036.  | 1.2 | 117       |
| 8  | Performance Evaluation of the Small-Animal nanoScan PET/MRI System. <i>Journal of Nuclear Medicine</i> , 2013, 54, 1825-1832.   | 2.8 | 104       |
| 9  | Theranostic applications of nanoparticles in neurodegenerative disorders. <i>International Journal of Nanomedicine</i> , 2018, Volume 13, 5561-5576.  | 3.3 | 102       |
| 10 | Evolution of microglial activation in ischaemic core and peri-infarct regions after stroke: A PET study with the TSPO molecular imaging biomarker [ <sup>11</sup> C]vinpocetine. <i>Journal of the Neurological Sciences</i> , 2012, 320, 110-117.  | 0.3 | 81        |
| 11 | Age and disease related changes in the translocator protein (TSPO) system in the human brain: Positron emission tomography measurements with [ <sup>11</sup> C]vinpocetine. <i>NeuroImage</i> , 2011, 56, 1111-1121.  | 2.1 | 80        |
| 12 | MicroRNAs -the Next Generation Therapeutic Targets in Human Diseases. <i>Theranostics</i> , 2013, 3, 930-942.   | 4.6 | 68        |
| 13 | Processing and Analysis of Form, Colour and Binocular Disparity in the Human Brain: Functional Anatomy by Positron Emission Tomography. <i>European Journal of Neuroscience</i> , 1994, 6, 1811-1828.   | 1.2 | 66        |
| 14 | A comparative autoradiography study in post mortem whole hemisphere human brain slices taken from Alzheimer patients and age-matched controls using two radiolabelled DAA1106 analogues with high affinity to the peripheral benzodiazepine receptor (PBR) system. <i>Neurochemistry International</i> , 2009, 54, 28-36. | 1.9 | 66        |
| 15 | Lineage-specific exosomes could override extracellular matrix mediated human mesenchymal stem cell differentiation. <i>Biomaterials</i> , 2018, 182, 312-322.   | 5.7 | 66        |
| 16 | Shallow 3D CNN for Detecting Acute Brain Hemorrhage From Medical Imaging Sensors. <i>IEEE Sensors Journal</i> , 2021, 21, 14290-14299.  | 2.4 | 65        |
| 17 | 27-Hydroxycholesterol impairs neuronal glucose uptake through an IRAP/GLUT4 system dysregulation. <i>Journal of Experimental Medicine</i> , 2017, 214, 699-717.   | 4.2 | 64        |
| 18 | The norepinephrine transporter (NET) radioligand (S,S)-[ <sup>18</sup> F]FMeNER-D2 shows significant decreases in NET density in the human brain in Alzheimer's disease: A post-mortem autoradiographic study. <i>Neurochemistry International</i> , 2010, 56, 789-798.   | 1.9 | 62        |

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|----|--|-----|-----------|
| 19 | PET-MR and SPECT-MR multimodality probes: Development and challenges. <i>Theranostics</i> , 2018, 8, 6210-6232.  | 4.6 | 59        |
| 20 | AUTEN-67, an autophagy-enhancing drug candidate with potent antiaging and neuroprotective effects. <i>Autophagy</i> , 2016, 12, 273-286.   | 4.3 | 50        |
| 21 | Acute neuroinflammation in a clinically relevant focal cortical ischemic stroke model in rat: longitudinal positron emission tomography and immunofluorescent tracking. <i>Brain Structure and Function</i> , 2016, 221, 1279-1290.          | 1.2 | 49        |
| 22 | The putative pheromone androstadienone activates cortical fields in the human brain related to social cognition. <i>Neurochemistry International</i> , 2004, 44, 595-600.  | 1.9 | 44        |
| 23 | [ <sup>11</sup> C]Vinpocetine: a prospective peripheral benzodiazepine receptor ligand for primate PET studies. <i>Journal of the Neurological Sciences</i> , 2005, 229-230, 219-223.  | 0.3 | 44        |
| 24 | Theranostic Probes for Targeting Tumor Microenvironment: An Overview. <i>International Journal of Molecular Sciences</i> , 2017, 18, 1036.   | 1.8 | 43        |
| 25 | Peripheral Biomarkers for Early Detection of Alzheimer's and Parkinson's Diseases. <i>Molecular Neurobiology</i> , 2019, 56, 2256-2277.  | 1.9 | 43        |
| 26 | Visualising Neuroinflammation in Post-Stroke Patients: A Comparative PET Study with the TSPO Molecular Imaging Biomarkers [ <sup>11</sup> C]PK11195 and [ <sup>11</sup> C]vinpocetine. <i>Current Radiopharmaceuticals</i> , 2012, 5, 19-28. | 0.3 | 41        |
| 27 | Synthesis of antibacterial and magnetic nanocomposites by decorating graphene oxide surface with metal nanoparticles. <i>RSC Advances</i> , 2015, 5, 76442-76450.  | 1.7 | 41        |
| 28 | AUTEN-67 (Autophagy Enhancer-67) Hampers the Progression of Neurodegenerative Symptoms in a Drosophila model of Huntington's Disease. <i>Journal of Huntington's Disease</i> , 2016, 5, 133-147.   | 0.9 | 39        |
| 29 | Cerebral Effects of a Single Dose of Intravenous Vinpocetine in Chronic Stroke Patients: A PET Study. <i>Journal of Neuroimaging</i> , 1998, 8, 197-204.   | 1.0 | 38        |
| 30 | PET/MRI: a frontier in era of complementary hybrid imaging. <i>European Journal of Hybrid Imaging</i> , 2018, 2, 12.   | 0.6 | 38        |
| 31 | The small molecule AUTEN-99 (autophagy enhancer-99) prevents the progression of neurodegenerative symptoms. <i>Scientific Reports</i> , 2017, 7, 42014.  | 1.6 | 37        |
| 32 | Bifunctional Fluorescent/Raman Nanoprobe for the Early Detection of Amyloid. <i>Scientific Reports</i> , 2019, 9, 8497.  | 1.6 | 34        |
| 33 | Nanoparticulate Contrast Agents for Multimodality Molecular Imaging. <i>Journal of Biomedical Nanotechnology</i> , 2016, 12, 1553-1584.  | 0.5 | 30        |
| 34 | Current Perspective of Stem Cell Therapy in Neurodegenerative and Metabolic Diseases. <i>Molecular Neurobiology</i> , 2017, 54, 7276-7296.   | 1.9 | 30        |
| 35 | Guidelines to PET measurements of the target occupancy in the brain for drug development. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2016, 43, 2255-2262.   | 3.3 | 28        |
| 36 | Gadolinium-based bimodal probes to enhance T1-Weighted magnetic resonance/optical imaging. <i>Acta Biomaterialia</i> , 2020, 110, 15-36.   | 4.1 | 28        |

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|----|---|-----|-----------|
| 37 | Cortical fields participating in spatial frequency and orientation discrimination: Functional anatomy by positron emission tomography. <i>Human Brain Mapping</i> , 1995, 3, 133-152.   | 1.9 | 22        |
| 38 | Alzheimer's Disease: A Molecular View of $\beta$ -Amyloid Induced Morbific Events. <i>Biomedicines</i> , 2021, 9, 1126.   | 1.4 | 22        |
| 39 | Multi-functional nano silver: A novel disruptive and theranostic agent for pathogenic organisms in real-time. <i>Scientific Reports</i> , 2016, 6, 34058.   | 1.6 | 21        |
| 40 | Positron emission tomographic imaging in drug discovery. <i>Drug Discovery Today</i> , 2022, 27, 280-291.   | 3.2 | 21        |
| 41 | An automated method measures variability in P-glycoprotein and ABCG2 densities across brain regions and brain matter. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2017, 37, 2062-2075.   | 2.4 | 20        |
| 42 | Evaluation of a novel $^{11}\text{C}$ -PDE10A PET radioligand, [ $^{11}\text{C}$ ]TC-773, in nonhuman primates: Brain and whole body PET and brain autoradiography. <i>Synapse</i> , 2015, 69, 345-355.   | 0.6 | 18        |
| 43 | Positive and Negative Impacts of COVID-19 in Digital Transformation. <i>Sustainability</i> , 2021, 13, 9470.  | 1.6 | 18        |
| 44 | Exploration of salivary proteins in buffalo: an approach to find marker proteins for estrus. <i>FASEB Journal</i> , 2014, 28, 4700-4709.  | 0.2 | 17        |
| 45 | Au nano-urchins enabled localized surface plasmon resonance sensing of beta amyloid fibrillation. <i>Nanoscale Advances</i> , 2020, 2, 2693-2698.   | 2.2 | 17        |
| 46 | The Multifarious Applications of Copper Nanoclusters in Biosensing and Bioimaging and Their Translational Role in Early Disease Detection. <i>Nanomaterials</i> , 2022, 12, 301.  | 1.9 | 16        |
| 47 | Brain PET measurement of PDE10A occupancy by TAK-063, a new PDE10A inhibitor, using [ $^{11}\text{C}$ ]TC-773 in nonhuman primates. <i>Synapse</i> , 2016, 70, 253-263.   | 0.6 | 15        |
| 48 | Blood brain barrier: A tissue engineered microfluidic chip. <i>Journal of Neuroscience Methods</i> , 2020, 331, 108525.   | 1.3 | 15        |
| 49 | An Overview on Cognitive Function Enhancement through Physical Exercises. <i>Brain Sciences</i> , 2021, 11, 1289.   | 1.1 | 15        |
| 50 | Synthesis and PET evaluation of (R)-[S-methyl- $^{11}\text{C}$ ]thionisoxetine, a candidate radioligand for imaging brain norepinephrine transporters. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2006, 49, 1007-1019.                   | 0.5 | 14        |
| 51 | Decrease of mGluR5 receptor density goes parallel with changes in enkephalin and substance P immunoreactivity in Huntington's disease: a preliminary investigation in the postmortem human brain. <i>Brain Structure and Function</i> , 2015, 220, 3043-3051. | 1.2 | 14        |
| 52 | Thallium Labeled Citrate-Coated Prussian Blue Nanoparticles as Potential Imaging Agent. <i>Contrast Media and Molecular Imaging</i> , 2018, 2018, 1-10.   | 0.4 | 14        |
| 53 | Buffalo nasal odorant-binding protein (bunOBP) and its structural evaluation with putative pheromones. <i>Scientific Reports</i> , 2018, 8, 9323.   | 1.6 | 14        |
| 54 | Doxorubicin-Conjugated Platinum Theranostic Nanoparticles Induce Apoptosis <i>via</i> Inhibition of a Cell Survival (PI3K/AKT) Signaling Pathway in Human Breast Cancer Cells. <i>ACS Applied Nano Materials</i> , 2021, 4, 198-210.                          | 2.4 | 14        |

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|----|---|-----|-----------|
| 55 | Cerebral uptake of [ethyl-11C]vinpocetine and 1-[11C]ethanol in cynomolgous monkeys: a comparative preclinical PET study. <i>Nuclear Medicine and Biology</i> , 2002, 29, 753-759.  | 0.3 | 13        |
| 56 | Attentional modulation of the auditory steady-state response across the cortex. <i>NeuroImage</i> , 2020, 217, 116930.  | 2.1 | 13        |
| 57 | A PET study comparing receptor occupancy by five selective cannabinoid 1 receptor antagonists in non-human primates. <i>Neuropharmacology</i> , 2016, 101, 519-530.   | 2.0 | 12        |
| 58 | FDG, MET or CHO? The quest for the optimal PET tracer for glioma imaging continues. <i>Nature Clinical Practice Neurology</i> , 2008, 4, 470-471.   | 2.7 | 11        |
| 59 | Positron Emission Tomography studies with [11C]PBR28 in the Healthy Rodent Brain: Validating SUV as an Outcome Measure of Neuroinflammation. <i>PLoS ONE</i> , 2015, 10, e0125917.  | 1.1 | 11        |
| 60 | Proteomic analysis of human saliva: An approach to find the marker protein for ovulation. <i>Reproductive Biology</i> , 2016, 16, 287-294.  | 0.9 | 11        |
| 61 | Radiochemical labelling of the dopamine D3 receptor ligand RGH-1756. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2000, 43, 1069-1074.   | 0.5 | 10        |
| 62 | The Advents of Hybrid Imaging Modalities: A New Era in Neuroimaging Applications. <i>Advanced Biology</i> , 2017, 1, e1700019.  | 3.0 | 10        |
| 63 | Altered striatal dopamine levels in Parkinson's disease VPS35 D620N mutant transgenic aged mice. <i>Molecular Brain</i> , 2020, 13, 164.  | 1.3 | 10        |
| 64 | Parkinson's Disease: A Nanotheranostic Approach Targeting Alpha-Synuclein Aggregation. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 707441.  | 1.8 | 10        |
| 65 | Nanotheranostic agents for neurodegenerative diseases. <i>Emerging Topics in Life Sciences</i> , 2020, 4, 645-675.  | 1.1 | 10        |
| 66 | Structural elucidation of estrus urinary lipocalin protein (EULP) and evaluating binding affinity with pheromones using molecular docking and fluorescence study. <i>Scientific Reports</i> , 2016, 6, 35900.   | 1.6 | 9         |
| 67 | Engineering Concepts in Stem Cell Research. <i>Biotechnology Journal</i> , 2017, 12, 1700066.   | 1.8 | 9         |
| 68 | An Overview of Multimodal Neuroimaging Using Nanoprobes. <i>International Journal of Molecular Sciences</i> , 2017, 18, 311.  | 1.8 | 9         |
| 69 | Dealing with PET radiometabolites. <i>EJNMMI Research</i> , 2020, 10, 109.  | 1.1 | 9         |
| 70 | Distribution and binding of 18F-labeled and 125I-labeled analogues of ACI-80, a prospective molecular imaging biomarker of disease: A whole hemisphere post mortem autoradiography study in human brains obtained from Alzheimer's disease patients. <i>Neurochemistry International</i> , 2012, 60, 153-162. | 1.9 | 8         |
| 71 | Muscle extract of <i>Arothron immaculatus</i> regulates the blood glucose level and the antioxidant system in high-fat diet and streptozotocin induced diabetic rats. <i>Bioorganic Chemistry</i> , 2019, 90, 103072.   | 2.0 | 7         |
| 72 | An In Vivo Study of a Rat Fluid-Percussion-Induced Traumatic Brain Injury Model with [11C]PBR28 and [18F]flumazenil PET Imaging. <i>International Journal of Molecular Sciences</i> , 2021, 22, 951.  | 1.8 | 7         |

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|----|---|-----|-----------|
| 73 | Auditory steady-state responses during and after a stimulus: Cortical sources, and the influence of attention and musicality. <i>NeuroImage</i> , 2021, 233, 117962.  | 2.1 | 7         |
| 74 | Mollification of Doxorubicin (DOX)-Mediated Cardiotoxicity Using Conjugated Chitosan Nanoparticles with Supplementation of Propionic Acid. <i>Nanomaterials</i> , 2022, 12, 502.                                  | 1.9 | 7         |
| 75 | In vitro phosphodiesterase 10A (PDE10A) binding in whole hemisphere human brain using the PET radioligand [ <sup>18</sup> F]MNI-659. <i>Brain Research</i> , 2019, 1711, 140-145.                                 | 1.1 | 6         |
| 76 | Targeted pancreatic beta cell imaging for early diagnosis. <i>European Journal of Cell Biology</i> , 2020, 99, 151110.  | 1.6 | 5         |
| 77 | Gold Nano-Urchins Enhanced Surface Plasmon Resonance (SPR) BIOSENSORS for the Detection of Estrogen Receptor Alpha (ER $\alpha$ ). <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-6. | 1.9 | 5         |
| 78 | Differential effects of white matter hyperintensities and regional amyloid deposition on regional cortical thickness. <i>Neurobiology of Aging</i> , 2022, 115, 12-19.  | 1.5 | 5         |
| 79 | In vivo occupancy of the 5-HT <sub>1A</sub> receptor by a novel pan 5-HT <sub>1</sub> (A/B/D) receptor antagonist, GSK588045, using positron emission tomography. <i>Neuropharmacology</i> , 2015, 92, 44-48.     | 2.0 | 4         |
| 80 | Fluorescence Resonance Energy Transfer (FRET)-Based ThT Free Sensing of Beta-Amyloid Fibrillation by Carbon Dot-Ag Composites. <i>Plasmonics</i> , 2021, 16, 863-872.   | 1.8 | 3         |
| 81 | Anticancer Potential of L-Histidine-Capped Silver Nanoparticles against Human Cervical Cancer Cells (SiHA). <i>Nanomaterials</i> , 2021, 11, 3154.  | 1.9 | 3         |
| 82 | Misfolded Protein Linked Strategies Toward Biomarker Development for Neurodegenerative Diseases. <i>Molecular Neurobiology</i> , 2019, 56, 2559-2578.   | 1.9 | 2         |
| 83 | Monkeys ??? a great asset to reveal human cognitive functions. <i>NeuroReport</i> , 2002, 13, 2167-2168.  | 0.6 | 1         |
| 84 | Summary: The Budapest meeting 2005 intensified networking on ethics of science. <i>Science and Engineering Ethics</i> , 2006, 12, 415-420.  | 1.7 | 1         |
| 85 | Codon usage of human hepatitis C virus clearance genes in relation to its expression. <i>Journal of Cellular Biochemistry</i> , 2020, 121, 534-544.   | 1.2 | 1         |
| 86 | Gadolinium and Polythiophene Functionalized Polyurea Polymer Dots as Fluoro-Magnetic Nanoprobes. <i>Nanomaterials</i> , 2022, 12, 642.  | 1.9 | 1         |
| 87 | The Exoproteome of <i>Staphylococcus pasteurii</i> Isolated from Cervical Mucus during the Estrus Phase in Water Buffalo ( <i>Bubalus bubalis</i> ). <i>Biomolecules</i> , 2022, 12, 450.                         | 1.8 | 1         |
| 88 | János Szentágothai. 31 October 1912 – 8 September 1994. <i>Biographical Memoirs of Fellows of the Royal Society</i> , 2013, 59, 383-406.  | 0.1 | 0         |
| 89 | Biocompatible branched copolymer nanoparticles prepared by RAFT polymerization as MRI/PET bimodal tracers. <i>EJNMMI Physics</i> , 2015, 2, A90.  | 1.3 | 0         |
| 90 | Peptides functionalized carbon dots for in vitro fluorescent imaging of amyloid fibrils. , 2017, , .  |     | 0         |

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|----|--|-----|-----------|
| 91 | Amyloid Beta42 ( $\text{A}\hat{\text{I}}^{242}$ ) Peptide Functionalized Iron Oxide Nanoparticles for Specific Targeting of SH-SY5Y Neuroblastoma Cells. Journal of Nanoscience and Nanotechnology, 2021, 21, 5044-5050. | 0.9 | 0         |
| 92 | Effect of amphetamine on dopamine D2 receptor binding in the primate brain with the agonist ligand [ $^{11}\text{C}$ ]MNPA. Journal of Cerebral Blood Flow and Metabolism, 2005, 25, S646-S646.                          | 2.4 | 0         |