Available online at **www.joac.info**

ISSN: 2278-1862

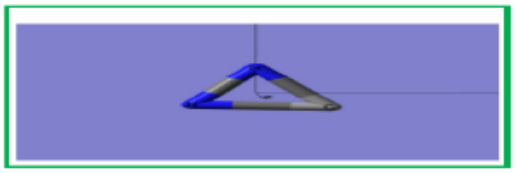
Journal of Applicable Chemistry

2024, 13 (3): 430-440

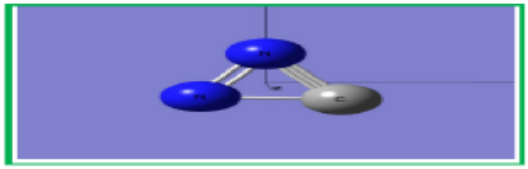
(International Peer Reviewed Journal)

New Chemistry News

$^{-}N=C=N^{-}$



New News of Chem (NNC)



ChemNewsNew (CNN)

CNN – 62a *I a m*

Intelligence [Evolving [/Nature's/Human/Artificial] [augmented; Assisted medical ...]

SUrgeon Neuro (Sun)

Select references

Information Source	sciencedirect.com;	
S. Narasinga Rao M D **Associate Professor,** **Emergency Medicine dept.,** **Andhra Medical College,** **King George Hospital** **Visakhapatnam, A.P., India**	**K. Somasekhara Rao, Ph D** **Dept. of Chemistry,** **Acharya Nagarjuna Univ.,** **Dr. M.R.Appa Rao Campus,** **Nuzvid-521 201, India**	**R. Sambasiva Rao, Ph D** **Dept. of Chemistry,** **Andhra University,** **Visakhapatnam 530 003,** **India**
snrnaveen007@gmail.com (+91 9848136704)	sr_kaza1947@yahoo.com (+91 98 48 94 26 18)	rsr.chem@gmail.com (+91 99 85 86 01 82)

Conspectus: The journal "Artificial Intelligence in Medicine (AIM)" was started from Science Direct in 1989. Alan Turing was the proposer of the AI n 1950. In 1956, McCarthy conducted a two-month workshop with select expert researchers to explore into practical applications of AI for real life tasks. The growth in breadth and depth of core-discipline with mathematical basis/heuristics continued in unexpected results/ solutions for NLP tasks in Medicine, Chemistry, defence, Governess, Space exploration, high-tech-movers,JWST and many other areas.

However, there were hypes and falls described in science-time-calendar as (two) winters and (one) Summer. The present AI with trillion US dollars equivalent market, also faces criticism although, there is

a hope a new world for the coming generation human race.
This news item attempts a typical short list of titles in Neuro-Surgery assisted by AI. Some of the relevant sub-tasks covered are diagnosis ofGlioma, Cerebrovascular disorders, Spine Surgery, Hematoma and so on.

Keywords: Artificial intelligence (AI); Medical diagnosis, Neurology, Surgery; CNN : [C [Computations; Computer; Chemistry] NN [New News; News New; Neural Nets; Nature News; News of Nature;]]

AI	Surgery	Neuro	Education	01
O52: Empowering Medical Students and Early Career Surgeons in Critical Appraisal of AI Research: Design and Evaluation of a Pilot Course				Ti
British Journal of Surgery, 111(Supplement_2), 2024, znae046.053. https://doi.org/10.1093/bjs/znae046.053				Jo
Victoria Ngai, Arif Hanafi Bin Jalal, John Gerrard Hanrahan, Adrito Das, Danyal Z Khan, Elizabeth Cotton, Shazia Sharela, Martyna Stasiak, Hani J Marcus, Anand S Pandit				Au

AI	Surgery	Neuro	GPT-4	02
O87: Stratified Evaluation of Large Language Model GPT-4's Question-Answering In Surgery reveals AI Knowledge Gaps				Ti
British Journal of Surgery, 111(Supplement_2), 2024, znae046.050. https://doi.org/10.1093/bjs/znae046.050				Jo
Rebecca Murphy Lonergan, Jake Curry, KallpanaDhas, Benno Simmons				Au

AI	Surgery	Neuro	GPT-4	03
421 GPT-4 Artificial Intelligence Model Outperforms ChatGPT, Medical Students, and Neurosurgery Residents on Neurosurgery Written Board-Like Questions : Neurosurgery				Ti
Neurosurgery, 70(Supplement_1), p 128, 2024.https://doi.org/10.1227/neu.0000000000002809_421				Jo
Guerra, Gage; Hofmann, Hayden; Sobhani, Sina; Hofmann, Grady; Gomez, David; Soroudi, Daniel; Hopkins, Benjamin; Dallas, Jonathan; Pangal, Dhiraj J.; Cheok, Stephanie; Nguyen, Vincent; Mack, William J.; Zada, Gabriel				Au

AI	Surgery	Neuro		04
224 Artificial Intelligence-based Decision Support Predicts Requirement for Neurosurgical Intervention in Acute Traumatic Brain Injury: Automated Surgical Intervention Support Tool (ASIST-TBI) Development, Validation and Simulated Prospective Deployment				Ti
Neurosurgery, 70(Supplement_1), p 60, 2024. https://doi.org/10.1227/neu.0000000000002809_224				Jo
Malhotra, Armaan K.; Smith, Christopher; Shakil, Husain; Ackery, Alun; Mamdani, M.; Nathens, Avery; Wilson, Jefferson; Colak, Errol; Witiw, Christopher				Au

AI	Surgery	Neuro		05
422 Novel Application of a Mixed-Reality Platform for Learning Neuroanatomy				Ti
Neurosurgery, 70(Supplement_1), p 128, 2024. https://doi.org/10.1227/neu.0000000000002809_422				Jo
Xiao, Tianqi; Crofton, Andrew; Sathishkumar, Buvaneshwari; Enterline, Rebecca; Wish-Baratz, Susanne				Au

AI	Surgery	Neuro		06
223An Artificial Intelligence Framework for Brain TumorDelineation in Intraoperative Ultrasound				Ti
Neurosurgery, 70(Supplement_1), p.60, 2024. DOI: 10.1227/neu.0000000000002809_223				Jo
Dorent, Reuben; Torio, Erickson; Haouchine, Nazim; Juvekar, Parikshit; Frisken, Sarah; Golby, Alexandra J.; Kapur, Tina; Wells, William				Au

AI	Surgery	Neuro		07
427Optimization of Morbidity and Mortality Conference:Results of a Multi-center Pilot at Neurosurgical TrainingPrograms				Ti
Neurosurgery, (Supplement_1), p.129-129, 2024. https://doi.org/10.1227/neu.0000000000002809_427				Jo
Justin G. Santarelli, Christina M. Sayama, Kushal Shah, Deborah L. Benzil				Au

AI	Surgery	Neuro		08
786An Analysis of Artificial Intelligence Responses toCommon Patient and Family Questions in CranialNeurosurgery				Ti
Congress of Neurological Surgeons, 70(1), 168, 2024.				Jo
Nicholas Cassimatis; Geoffrey R. O'Malley; Patrick Janezcko;David Adams; Rohit Prem Kumar; Nitesh Vijay Patel; Patrick Roth; Scott A. Meyer				Au

AI	Surgery	Neuro		09
368Preoperative Soft Tissue Imaging Features Elucidated byArtificial Intelligence May Best Predict RadiographicProximal Junction Kyphosis Following Adult Spinal Deformity Surgery				Ti
Congress of Neurological Surgeons, 70(1), 110, 2024.				Jo
Graham Walter Johnson; Hani Chanbour; Jeffrey Chen;Tyler Metcalf; Derek Doss; Iyan Younus, BA; Soren Jonzzon;Mir Amaan Ali, BS; Steven G. Roth; Amir Abtahi;Byron Stephens; Scott L. Zuckerman				Au

AI	Surgery	Neuro		10
228Expert Hand Motion During Microvascular AnastomosisSimulation: Big Data Analysis Using Machine LearningHand Detection				Ti

Neurosurgery. 70(Supplement_1),61-62, 2024	Jo
Gonzalez, Nicolas Ivan; Mignucci-Jiménez, Giancarlo; Xu, Yuan; Abramov, Irakliy; Park, Wonhyoung; Wanebo, John E.; Tanikawa, Rokuya; Lawton, Michael T.; Preul, Mark C.	Au

AI	Surgery	Neuro		11
Solving real‐world optimizationtasks using physics‐informedneural computing				Ti
Scientific Reports, 14, 202, 2024. https://doi.org/10.1038/s41598-023-49977-3				Jo
Jaemin Seo				Au

AI	Surgery	Neuro		12
Natural and Artificial Intelligence in Neurosurgery: A Systematic Review				Ti
Neurosurgery, 83(2), 181–192. https://doi.org/10.1093/neuros/nyx384				Jo
Joeky T Senders, Omar Arnaout, Aditya V Karhade, Hormuzdiyar H Dasenbrock, William B Gormley, Marike L Broekman, Timothy R Smith				Au

AI	Surgery	Neuro		13
Application Status and Prospect of Artificial Intelligence in Neurosurgery				Ti
Learning and Career Development in Neurosurgery. Springer, Cham.2022. https://doi.org/10.1007/978-3-031-02078-0_26				Jo
Yang, W., Huang, Y., Qin, L., Xu, B.				Au

AI	Surgery	Neuro	Chat-GPT	14
Chat-GPT on brain tumors: An examination of Artificial Intelligence/Machine Learning's ability to provide diagnoses and treatment plans for example neuro-oncology cases				Ti
Clinical Neurology and Neurosurgery, 239, 108238, 2024. https://doi.org/10.1016/j.clineuro.2024.108238				Jo
Giovanni Kozel, Muhammet Enes Gurses, Neslihan Nisa Gecici, Elif Gökalp, Siyar Bahadir, Martin A. Merenzon, Ashish H. Shah, Ricardo J. Komotar, Michael E. Ivan				Au

AI	Surgery	Neuro	Review	15
Artificial Intelligence in Neurosurgery: A State-of-the-Art Review from Past to Future				Ti
Diagnostics, 13, 2429, 2023. https://doi.org/10.3390/diagnostics13142429				Jo
Jonathan A. Tangsrivimol, Ethan Schonfeld, Michael Zhang, Anand Veeravagu ,Timothy R. Smith,Roger Härtl,Michael T. LawtonD,Adham H. El-Sherbini, Daniel M. Prevedello,Benjamin S. Glicksberg andChayakritKrittanawong				Au

AI	Surgery	Neuro		16
226Advancing Neurovascular Diagnostics for AbnormalHemodynamic Conditions Through AI-Driven Physics informed Neural Networks				Ti
CLINICAL NEUROSURGERY, 70(1), 2024.				Jo
Kyle Williams, Stephen Rudin, Daniel Bednarek, Ammad Baig, Adnan Hussain Siddiqui, Elad I. Levy				Au

AI	Surgery	Neuro		17
227Spine-tuned Natural Language Models and BespokeRegular Expression Classifiers for Automated SpinalSurgery Registry Development				Ti
CLINICAL NEUROSURGERY, 70(1), 2024.				Jo
Daniel Alexander Alber, Alexander Cheung, David B. Kurland, Karl Lee Sangwon, Lavender Jiang. Chris Liu, Eric Karl Oermann				Au

AI	Surgery	Neuro	ChatGPT	18
The AI Behind ChatGPT Is Ready to DoChemistry				Ti
https://bit.ly/3OvXvo8				Jo
Shelly Fan				Au

AI	Surgery	Neuro	Chat-GPT	19
Chat-GPT on brain tumors: An examination of Artificial Intelligence/Machine Learning's ability to provide diagnoses and treatment plans for example neuro-oncology cases				Ti
Clinical Neurology and Neurosurgery, 239, 108238, 2024.				Jo
Giovanni Kozel, Muhammet Enes Gurses, Neslihan Nisa Gecici, Elif Gökalp, Siyar Bahadir, Martin A. Merenzon f, Ashish H. Shah, Ricardo J. Komotar, Michael E. Ivan				Au

AI	Surgery	Neuro		20
335 Federal Research Funding Trends for Cerebrovascular Neurosurgeons: The Decline of the Cerebrovascular Surgeon-Scientist?				Ti
Neurosurgery, 70(Supplement_1):p 98-99, 2024. DOI:10.1227/neu.0000000000002809_335				Jo
Pugazenthi, Sangami; Srienc, Anja I.; Cantu, Luke; Huguenard, Anna; Eskandar, Emad N.; Mack, William J.; Amin-Hanjani, Sepideh; Vellimana, Ananth K.; Zipfel, GregoryJ.				Au

AI	Surgery	Neuro		21
The Nature of Things				Ti
Clinical Neurosurgery, 70 (1), 2024.				Jo
Douglas Kondziolka				Au

AI	Surgery	Neuro	Review	22
Recent outcomes and challenges of artificial intelligence, machine learning and deep learning applications in neurosurgery – Review applications of artificial intelligence in neurosurgery				Ti
World Neurosurgery, 2024 https://doi.org/10.1016/j.wnsx.2024.100301				Jo
Wireko Andrew Awuah, Favour Tope Adebusoye, Jack Wellington, Lian David, Abdus Salam, Amanda Leong Weng Yee, Edouard Lansiaux, Rohan Yarlagadda, Tulika Garg, Toufik Abdul-Rahman, Jacob Kalmanovich, Goshen David Miteu, Mrinmoy Kundu, Nikitina Iryna Mykolaivna				Au

AI	Surgery	Neuro	7T MRI	23
Central vein sign and trigeminal lesions of multiplesclerosis visualised by 7T MRI				Ti
NeurolNeurosurg Psychiatry, 2024. doi:10.1136/jnnp-2023-332566				Jo
Jing Jing, Zhe Zhang, Lei Su,Chenyang Gao, Ai Guo, Xinyao Liu,Huabing Wang, Xinghu Zhang,Yaou Liu, Giancarlo Comi, Emmanuelle Waubant, Fu-Dong Shi, De-Cai Tian				Au

AI	Surgery	Neuro		24
Explainable hybrid vision transformers and convolutionalnetwork for multimodal gliomasegmentation in brain MRI				Ti
Scientific Reports, 2024. https://doi.org/10.1038/s41598-024-54186-7				Jo
Ramy A. Zeineldin, Mohamed E. Karar, Ziad Elshaer, Jan Coburger,Christian R. Wirtz, Oliver Burgert & Franziska Mathis Ullrich				Au

AI	Surgery	Neuro		25
Exoscope-assisted spine surgery: Current applications and future directions				Ti
World Neurosurgery: X, 23, 100335, 2024. doi.org/10.1016/j.wnsx.2024.100335				Jo
Tomas Ferreira a,1,*, Sakshi Roy b, Joecelyn Kirani Tan c, Wireko Andrew Awuah d, Vallabh Shet e, Favour Tope Adebusoye d, Nicholas Aderinto f, Toufik Abdul-Rahman				Au

AI	Surgery	Neuro		26
NnU-Net versus mesh growing algorithm as a tool for the robustand timely segmentation of neurosurgical 3D imagesin contrast enhanced T1 MRI scans				Ti
Acta Neurochirurgica, 166, 92, 2024 https://doi.org/10.1007/s00701-024-05973-8				Jo
Mathijs de Boer, Tessa M. Kos, Tim Fick, Jesse A. M. van Doormaal, Elisa Colombo, Hugo J. Kuijf, Pierre A. J. T. Robe, Luca P. Regli, Lambertus W. Bartels, Tristan P. C. van Doormaal				Au

AI	Surgery	Neuro		27
Letter to the Editor. Sophisticated data acquisition and analytics in neurosurgery: beneficial but expect challenges				Ti
J Neurosurg, 2024. doi: 10.3171/2023.11.JNS232487				Jo
Nicolas I Gonzalez-Romo, Mark C Preul				Au

AI	Surgery	Neuro		28
Development of an AI-driven system for neurosurgery with a usability study: a step towards minimal invasive robotics				Ti
at –Automatisierungstechnik, 71, 7, 2023, 537-546. https://doi.org/10.1515/auto-2023-0061				Jo
Ramy A. Zeineldin EMAIL logo , Denise Junger , Franziska Mathis-Ullrich and Oliver Burgert				Au

AI	Surgery	Neuro	Thesis	29
Doctoral Dissertation Utilizing Artificial Intelligence and Computational FluidDynamics for the Diagnosis and Data Assimilation in Cerebral Aneurysms				Ti
LIAO Jing Kanazawa University And Japan Advanced Institute Of Science And Technology (Jaist), July 2023				University

AI	Surgery	Neuro	ChatGPT	30
Is ChatGPT Proficient in extracting critical medical information from patient records?				Ti
Asian Journal of Surgery, 2024. https://doi.org/10.1016/j.asjsur.2024.02.123				Jo
Chengxing Qian, Renzhi Wang, Yi Fang				Au

AI	Surgery	Neuro	review	31
Emerging artificial intelligence-aided diagnosis and management methods for ischemic strokes and vascular occlusions: A comprehensive				Ti
World Neurosurgery: X, 22, 100303, 2024 https://doi.org/10.1016/j.wnsx.2024.100303				Jo
G.A.U.R.I. Parvathya, B.A.L.A.K.R.I.S.H.N.A.N. Kamaraj, B.I.K.I.K.U.M.A.R. Sah, A.A.K.A.N.S.H.R.A.H.U.L. Maheshwari, A.I.S.W.A.R.I.Y.A.A.N.N.A. Alexander, V.I.N.D.H.E.S.H. Dixit, H.A.S.S.A.N. Mumtaz, M.U.H.A.M.M.A.D. Saqib				Au

AI	Surgery	Neuro		32
Robotics and Artificial Intelligence inEndovascular Neurosurgery				Ti
Cureus 14(3): e23662 DOI: 10.7759/cureus.23662				Jo

Javier Bravo, Arvin R. Wali, Brian R. Hirshman, Tilvawala Gopesh, Jeffrey A. Steinberg, Bernard Yan, J. Scott Pannell, Alexander Norbash, James Friend, Alexander A. Khalessi, David Santiago-Dieppa	Au

AI	Surgery	Neuro		33
Correlating Age and Hematoma Volume with Extent of Midline Shift in Acute Subdural Hematoma Patients: Validation of an Artificial Intelligence Tool for Volumetric Analysis				Ti
World Neurosurgery, 2024 doi: https://doi.org/10.1016/j.wneu.2024.03.064				Jo
Koneru M, Paul U, Upadhyay U, Tanamala S, Golla S, Shaikh HA, Thomas AJ, Mossop CM, Tonetti DA				Au

AI	Surgery	Neuro		34
Artificial Intelligence in Neurosurgery: A Bibliometric Analysis				Ti
World Neurosurg, 171, 152-158, 2023. https://doi.org/10.1016/j.wneu.2022.12.087				Jo
Victor Gabriel El-Hajj, Maria Gharios, Erik Edstrom, Adrian Elmi-Terander				Au

AI	Surgery	Neuro		35
Emerging Applications of Artificial Intelligence in Neuro-Oncology				Ti
Radiology, 290(3), 607-618. https://doi.org/10.1148/radiol.2018181928				Jo
Jeffrey D. Rudie, Andreas M. Rauschecker, R. Nick Bryan, Christos Davatzikos, Suyash Mohan				Au

AI	Surgery	Neuro	Future of Neurosurgery	36
Is Artificial Intelligence a Helping Hand for the Future of Neurosurgery?				Ti
5th International Conference on Information Systems and Computer Networks (ISCON), 2021.				Jo
Harshita Goswami ; Pravir Kumar				Au

AI	Surgery	Neuro		37
Promises and Perils of Artificial Intelligence in Neurosurgery				Ti
Neurosurgery, 2019. DOI:10.1093/neuros/nyz471				Jo
Sandip S. Panesar, Michel Kliot, Rob Parrish, Juan Fernandez-Miranda, Yvonne Cagle				Au

AI	Surgery	Neuro		38

Artificial intelligence in neurosciences: Aclinician's perspective	Ti
https://www.neurologyindia.com/text.asp?2018/66/4/934/236971	Jo
Ganapathy K, Abdul SS, Nursetyo AA.	Au

AI	Surgery	Neuro		39
Artificial Intelligence: Development and Applications in Neurosurgery				Ti
Artificial Intelligence. IntechOpen, Dec. 13, 2023. doi: 10.5772/intechopen.113034.				Jo
Raivat Shah, Vanessa Reese, Martin Oselkin and Stanislaw P. Stawicki				Au

AI	Surgery	Neuro	review	40
Artificialintelligence in neurosurgery: A review				Ti
OMSTH, 1(1): e23003, 2023.				Jo
Rakesh Mishra, harsh Deora				Au

AI	Surgery	Neuro		41
An insight into artificial intelligence and its role in neurosurgery				Ti
Romanian Neurosurgery, 37(1), 124–127, 2023. doi.org/10.33962/roneuro-2023-021				Jo
Ahtesham Khizar				Au

AI	Surgery	Neuro		42
ArtificialIntelligence in Brain TumourSurgery—An Emerging Paradigm				Ti
Cancers, 13(19), 5010, 2021. https://doi.org/10.3390/cancers13195010				Jo
Simon Williams,Hugo Layard Horsfall,Jonathan P. Funnell, John G. Hanrahan, Danyal Z. Khan,William Muirhead, Danail Stoyanov andHani J. Marcus				Au

AI	Surgery	Neuro	Review	43
ArtificialIntelligence in Neurosurgery: AState-of-the-Art Review from Past to Future				Ti
Diagnostics, 13, 2429, 2023. https://doi.org/10.3390/diagnostics13142429				Jo
Tangsrivimol J.A, Schonfeld E, Zhang M, Veeravagu A, Smith TR, Härtl R, Lawton M.T, El-Sherbini A.H, Prevedello D.M, Glicksberg B.S				Au

AI	Surgery	Neuro		44
Artificial Intelligence Applications in Clinical Neurosurgery				Ti
Precision Medicine and Clinical OMICS, 2(1), e133563 https://doi.org/10.5812/pmco-133563				Jo
Pooria Sobhanian, Misagh Shafizad, Shaghayegh Karami, Fateme Mozaffari, Amirhossein Arab, Ghazal Razani, Paria Shafiekhani and Saeid Safari				Au

AI	Surgery	Neuro		45
Machine Learning-Based Surgical Planning for Neurosurgery: ArtificialIntelligent Approaches to the Cranium				Ti
Frontiers in Surgery, 9, 2022. doi: 10.3389/fsurg.2022.863633				Jo
Tolga Turan Dundar, Ismail Yurtsever, Meltem Kurt Pehlivanoglu, Ugur Yildiz,Aysegul Eker, Mehmet Ali Demir, Ahmet Serdar Mutluer, Recep Tektas, Mevlude Sila Kazan, Serkan Kitis, Abdulkerim Gokoglu, Ihsan Dogan andNevcihan Duru				Au

AI	Surgery	Neuro		46
Machine Learning and Artificial Intelligence in Neurosurgery: Status, Prospects, and Challenges Introduction And Overview: The Road To Artificial Intelligence				Ti
Neurosurgery, 89(2), 133-142, 2021. DOI: 10.1093/neuros/nyab170				Jo
T. Forcht Dagi, Fred G. Barker, Jacob Glass				Au

AI	Surgery	Neuro		47
Artificial Intelligence for Neurosurgery : Current State and Future Directions				Ti
J. Korean Neurosurg Soc., 66 (2) : 113-120, 2023 https://doi.org/10.3340/jkns.2022.0130hin2,3				Jo
Sung Hyun Noh, Pyung Goo Cho, Keung Nyun Kim, Sang Hyun Kim, Dong Ah S				Au

AI	Surgery	Neuro		48
Artificial Intelligence in Neurosurgery: Pre, Intra and Post Operation Applications				Ti
J Surg, 8, 2023. https://doi.org/10.29011/2575-9760.001895				Jo
Sanobar Shariff, Burhan Kantawala, Anahit Mkrtchyan, Foad Mirzaei, Vahe Grigoryan, Davtyan Ellen, Anit Abraham, Poornendhu Jayaprakash, NethminiSirimanne, Anna Kazaryan, Anurenj Santhosh Kumar, Nupur, Vahagn Petrosyan, Kivork Baghdasarian, Manjul Tripathi, Prakamya Gupta				Au

AI	Surgery	Neuro	review	49
The future of artificial intelligence in neurosurgery: A narrative review				Ti

Surgical Neurology International, 13(536), 2022.	Jo
Javed Iqbal, Kainat Jahangir, Yusra Mashkoor , Nazia Sultana, Dalia Mehmood, Mohammad Ashraf, Ather Iqbal, Muhammad Hassan Hafeez	Au

AI	Surgery	Neuro		50
Neurosurgery and artificial intelligence				Ti
AIMS Neurosci., 8(4), 477–495,2021. doi: 10.3934/Neuroscience.2021025				Jo
Mohammad Mofatteh				Au

AI	Surgery	Neuro		51
From theory to practice: what is the potential of artificial intelligence in the future of neurosurgery?				Ti
Expert Review of Neurotherapeutics, 23(12), 1041–46, 2023. doi:10.1080/14737175.2023.2285432.				Jo
Hannah Planells, Viraj Parmar, Hani J Marcus and Anand S Pandit				Au

AI	Surgery	Neuro	augmented and virtual reality	52
Advances in artificial intelligence,robotics, augmented and virtual reality inneurosurgery				Ti
Front. Surg., 2023. doi: 10.3389/fsurg.2023.1241923				Jo
Kazemzadeh K, Akhlaghdoust M and Zali A				Au

AI	Surgery	Neuro		53
Machine learning in neurosurgery: transitioning to a newera of contemporary medicine				Ti
Neurological Focus, 54, 2023. DOI: 10.3171/2023.6.FOCUS23210a.				Jo
Mohamad Bydon, John				Au

AI	Surgery	Neuro		54
New A.I. Tool Diagnoses Brain Tumors on the Operating Table				Ti
https://www.nytimes.com/2023/10/11/health/ai-tumor-diagnosis-brain-cancer.html				Jo
Benjamin Mueller				Au