Artificial Intelligence Applications in Inflammatory Bowel Disease: Emerging Technologies and Future Directions

Artificial Intelligence in Inflammatory Bowel Disease

Abstract

Inflammatory bowel disease (IBD) is a complex and multifaceted disorder of the gastrointestinal tract that is increasing in incidence worldwide and associated with significant morbidity. The rapid accumulation of large datasets from electronic health records, high-definition multi-omics (including genomics, proteomics, transcriptomics, and metagenomics), and imaging modalities (endoscopy and endomicroscopy) have provided powerful tools to unravel novel mechanistic insights and help address unmet clinical needs in IBD. Although the application of artificial intelligence (AI) methods has facilitated the analysis, integration, and interpretation of large datasets in IBD,

191,000 Results   Any time ▾

Emerging use of artificial intelligence in inflammatory ...
https://pubmed.ncbi.nlm.nih.gov/33311940

Artificial intelligence, through machine learning facilitates the interpretation of large arrays of data, and may provide insight to improving **IBD** outcomes. While potential **applications** of machine learning models are vast, further research is needed to generate standardized models that can be adapted to target **IBD** ...

Author: Arushi Kohli, Erik A Holzwanger, Alex...   Publish Year: 2020

The emerging role of AI in medicine, gastroenterology and ...
https://www.mayoclinic.org/medical-professionals/... ▾

Some of the early efforts in applying AI tools to **GI** will be focused on improving diagnosis and outcomes in common, yet complex **GI diseases** such as liver cirrhosis and **inflammatory bowel disease**.

Artificial intelligence for anterior segment diseases ...
https://pubmed.ncbi.nlm.nih.gov/32532762

With the advancement of computational power, refinement of learning algorithms and architectures, and availability of big data, **artificial intelligence** (AI) **technology**, particularly with machine learning and deep learning, is paving the way for 'intelligent' healthcare systems. AI-related research i ...

Cited by: 7   Author: Darren Shu Jeng Ting, Valencia Hx Foo, ...
Publish Year: 2021

Artificial intelligence for anterior segment diseases ...
https://bjo.bmj.com/content/105/2/158 ▾

Feb 01, 2021 · In addition, integration of **AI technology** and telemedicine is now emer**ging** as a potential strategy to address limitations in healthcare resources.12 13 In this review, we provide an overview of **AI applications** to the anterior segment, addressing the assessment of cornea, cataract and anterior chamber structures, important clinical considerations for clinical adoption, potential **integration** with ...

Cited by: 7   Author: Darren Shu Jeng Ting, Valencia Hx Foo, ...
Publish Year: 2021

A systematic review of the applications of artificial ...
https://www.nature.com/articles/s41746-020-0229-3

Mar 09, 2020 · Machine learning and artificial intelligence are most commonly applied to multiple

Microsoft Bing

Artificial intelligence applications in inflammatory bowel disease: Er

ALL   IMAGES   VIDEOS

20,100 Results   Any time ▾

TWiHST: March 19, 2021 - Volume 22, Number 27
https://hst.mit.edu/news-events/twihst/volume-22-number-27 ▾

Mar 19, 2021 · Team CB2 is in this competition based on a proposed plan to search for and identify CB2 agonists which may have therapeutic potential for the treatment of **inflammatory bowel disease**, multiple sclerosis, rheumatoid arthritis, and other **inflammatory** conditions. We will be attempting to use computational pharmacology to find CB2 agonists.

TWiHST: February 26, 2021 - Volume 22, Number 24
https://hst.mit.edu/news-events/twihst/volume-22-number-24 ▾

Team CB2 is in this competition based on a proposed plan to search for and identify CB2 agonists which may have therapeutic potential for the treatment of **inflammatory bowel disease**, multiple sclerosis, rheumatoid arthritis, and other **inflammatory** conditions. We will be attempting to use computational pharmacology to find CB2 agonists.

PEOPLE ALSO ASK

How is artificial intelligence used in medical practice?   ⌄

Which is the first application of AI in medicine?   ⌄

How is AI used in the field of Gastroenterology?   ⌄

How is artificial intelligence used in clinical nephrology?   ⌄

Feedback

Emerging use of artificial intelligence in inflammatory ...

https://pubmed.ncbi.nlm.nih.gov/33311940

Artificial intelligence, through machine learning facilitates the interpretation of large arrays of data, and may provide insight to improving **IBD** outcomes. While potential **applications** of machine learning models are vast, further research is needed to generate standardized models that can be adapted to target **IBD** ...

Cited by: 1   **Author:** Arushi Kohli, Erik A Holzwanger, Alexander ...
Publish Year: 2020

The emerging role of AI in medicine, gastroenterology and ...

https://www.mayoclinic.org/medical-professionals/... ▾

Some of the early efforts in applying AI tools to **GI** will be focused on improving diagnosis and outcomes in common, yet complex **GI diseases** such as liver cirrhosis and inflammatory bowel disease. Other potential applications could include practice optimization for endoscopic procedures, the development of new image analysis tools, and innovation focused on early detection of pancreatic and other **GI** cancers.

PEOPLE ALSO ASK

When is artificial intelligence coming to medical practice?	⌄
How is AI used in the field of Gastroenterology?	⌄
What are the applications of AI in radiology?	⌄
How can artificial intelligence help clinical staff?	⌄

Feedback

A systematic review of the applications of artificial ...

https://www.nature.com/articles/s41746-020-0229-3

Mar 09, 2020 · Machine learning and artificial intelligence are most commonly applied to multiple sclerosis (MS), **rheumatoid arthritis (RA)** and **inflammatory bowel disease** (IBD). MS, ...

Cited by: 13   **Author:** I. S. Stafford, M. Kellermann, E. Mossotto, ...
Publish Year: 2020

Artificial intelligence for anterior segment diseases ...

https://pubmed.ncbi.nlm.nih.gov/32532762