

Match Overview

- 1** **Crossref** 34 words
Muhammad Khalid Khan Niazi, Anil V Parwani, Metin N Gur...
an. "Digital pathology and artificial intelligence", The Lancet O 1%
- 2** **Crossref** 33 words
Jerome Y. Cheng, Jacob T. Abel, Ulysses G.J. Balis, David S.
McClintock, Liron Pantanowitz. "Challenges in the Developr... 1%

Name of Journal: *World Journal of Gastroenterology*

Manuscript NO: 63775

Manuscript Type: MINIREVIEWS

Requirements for implementation of artificial intelligence in the practice of gastrointestinal pathology

AI implementation to GI pathology practice

Abstract

Tremendous advances in artificial intelligence (AI) in medical image analysis have been achieved in recent years. The integration of AI is expected to cause a revolution in various areas of medicine, including gastrointestinal pathology. Currently, deep learning algorithms have shown promising benefits in areas of diagnostic histopathology, such as tumor identification, classification, prognosis prediction, and biomarker/genetic alteration prediction. While AI cannot substitute pathologists, carefully constructed AI applications may increase workforce productivity and



ALL

IMAGES

VIDEOS

903,000 Results

Any time ▼

Artificial intelligence-based pathology for ...

<https://gut.bmj.com/content/early/2020/11/18/gutjnl-2020-322880> ▼

Nov 18, 2020 - The development of efficient deep-learning models require training on large sets that reflect scanning and staining protocols variability. The main challenges for the implementation of artificial intelligence-based pathology are laboratory infrastructures and algorithms reproducibility/robustness.

Cited by: 1

Author: Julien Calderaro, Jakob Nikolas Kather

Publish Year: 2020

Artificial intelligence in gastrointestinal endoscopy

<https://pubmed.ncbi.nlm.nih.gov/33319126>

Background and aims: Artificial intelligence (AI)-based applications have transformed several industries and are widely used in various consumer products and services. In medicine, AI is primarily being used for image classification and natural language processing and has great potential to affect image-based specialties such as radiology, pathology, and gastroenterology (GE).

Cited by: 1

Author: Rahul Pannala, Kumar Krishnan, Joshua ...

Publish Year: 2020

Artificial Intelligence and Upper Gastrointestinal ...

<https://pubmed.ncbi.nlm.nih.gov/30549317>

With recent breakthroughs in artificial intelligence, computer-aided diagnosis (CAD) for upper gastrointestinal endoscopy is gaining increasing attention. Main research focuses in this field include automated identification of dysplasia in Barrett's esophagus and detection of early gastric cancers. ...

Cited by: 32

Author: Yuichi Mori, Shin-ei Kudo, Hussein E. N. ...

Publish Year: 2019

Position statement on priorities for artificial ...

<https://www.sciencedirect.com/science/article/pii/S0016510720344606>

Oct 01, 2020 - Artificial intelligence (AI) is poised to play a crucial role throughout the practice of gastroenterology. Machine learning (ML) is a branch of AI focusing on computer algorithms that can learn from data and perform specific tasks and analyses, often without explicit human programming.

Striving for quality improvement: can artificial ...

<https://www.sciencedirect.com/science/article/pii/S1521691820300573>

Dec 29, 2020 - Artificial intelligence (AI) is of keen interest for global health development as potential



ALL

IMAGES

VIDEOS

1,480,000 Results

Any time ▼

Artificial intelligence in gastrointestinal endoscopy

<https://pubmed.ncbi.nlm.nih.gov/33319126>

Background and aims: **Artificial intelligence** (AI)-based applications have transformed several industries and are widely used in various consumer products and services. In medicine, AI is primarily being used for image classification and natural language processing and has great potential to affect image-based specialties such as radiology, **pathology**, and gastroenterology (GE).

Cited by: 1

Author: Rahul Pannala, Kumar Krishnan, Joshua M...

Publish Year: 2020

Artificial intelligence-based pathology for ...

<https://gut.bmj.com/content/early/2020/11/18/gutjnl-2020-322880> ▼

Nov 18, 2020 · The development of efficient deep-learning models require training on large sets that reflect scanning and staining protocols variability. The main challenges for the implementation of artificial intelligence-based pathology are laboratory infrastructures and algorithms reproducibility/robustness.

Cited by: 1

Author: Julien Calderaro, Jakob Nikolas Kather

Publish Year: 2020

Estimated Reading Time: 12 mins

PEOPLE ALSO ASK

How is artificial intelligence being used in pathology? ▼

How is AI used in GI and liver cancer? ▼

Are there any AI tools for histopathological daily practice? ▼

ALL

IMAGES

VIDEOS

MAPS

NEWS

SHOPPING

1,750,000 Results

Any time ▾

Open links in new tab



[Artificial intelligence in gastrointestinal endoscopy](https://pubmed.ncbi.nlm.nih.gov/33319126)

<https://pubmed.ncbi.nlm.nih.gov/33319126>

Background and aims: **Artificial intelligence** (AI)-based applications have transformed several industries and are widely used in various consumer products and services. In medicine, AI is primarily being used for image classification and natural language processing and has great potential to affect image-based specialties such as radiology, **pathology**, and gastroenterology (GE).

Cited by: 1**Author:** Rahul Pannala, Kumar Krishnan, Joshua M...**Publish Year:** 2020

[Artificial intelligence-based pathology for ...](https://gut.bmj.com/content/early/2020/11/18/gutjnl-2020-322880)

<https://gut.bmj.com/content/early/2020/11/18/gutjnl-2020-322880> ▾

Nov 18, 2020 · The development of efficient deep-learning models require training on large sets that reflect scanning and staining protocols variability. The main challenges for the implementation of artificial intelligence-based pathology are laboratory infrastructures and algorithms reproducibility/robustness.

Cited by: 1**Author:** Julien Calderaro, Jakob Nikolas Kather**Publish Year:** 2020

PEOPLE ALSO ASK

How is artificial intelligence being used in pathology? ▾

How is AI used in GI and liver cancer? ▾

Are there any AI tools for histopathological daily practice? ▾

Can artificial intelligence predict liver cancer? ▾

[Feedback](#)

[Artificial Intelligence and Upper Gastrointestinal ...](https://pubmed.ncbi.nlm.nih.gov/30549317)

<https://pubmed.ncbi.nlm.nih.gov/30549317>

With recent breakthroughs in **artificial intelligence**, computer-aided diagnosis (CAD) for upper **gastrointestinal** endoscopy is gaining increasing attention. Main research focuses in this field include automated identification of dysplasia in Barrett's esophagus and detection of early gastric cancers. ...