Memahami Turnitin AI Detection, Analisis Keakuratan dan Cara penggunaannya

Membangun Ekosistem Akademik yang Bermutu dengan
Jurnal yang Kredibel dan Bebas Plagiarisme

Prof. Dr. Hermin Pancasakti Kusumaningrum, SSi., MSi.
Program Studi Bioteknologi
Fakultas Sains dan Matematika
Universitas Diponegoro
Rabu, 29 Oktober 2025

LATAR BELAKANG

- • MENINGKATNYA PENGGUNAAN AI (CHATGPT, GEMINI, DLL) DALAM PENULISAN AKADEMIK
- • TANTANGAN DALAM MENDETEKSI KEASLIAN KARYA ILMIAH
- • TURNITIN MEMPERKENALKAN FITUR *AI WRITING DETECTION* SEJAK 2023

TUJUAN PELATIHAN

- • MEMAHAMI PRINSIP KERJA DETEKSI AI PADA TURNITIN
- • MENILAI KEAKURATAN DAN KETERBATASANNYA
- • MENGETAHUI PRAKTIK TERBAIK BAGI DOSEN DALAM MENILAI KEASLIAN KARYA

KONSEP DASAR TURNITIN AI DETECTION

- • MENGANALISIS POLA BAHASA DAN STRUKTUR KALIMAT
- • FOKUS PADA *PREDICTABILITY* DAN *BURSTINESS*
- • TIDAK MENDETEKSI SUMBER TEKS SEPERTI PLAGIARISME TRADISIONAL

PROSES DETEKSI LANGKAH DEMI LANGKAH

- • 1. DOKUMEN DIUNGGAH KE SISTEM TURNITIN
- • 2. MODEL AI MENGANALISIS TEKS BERDASARKAN MODEL GPT
- • 3. SISTEM MENGHITUNG KEMUNGKINAN TEKS DITULIS MANUSIA VS. AI
- • 4. HASIL MUNCUL SEBAGAI PERSENTASE AI-GENERATED TEXT

FITUR UTAMA LAPORAN AI DETECTION

- • MENAMPILKAN PERSENTASE DETEKSI AI DI BAGIAN TERTENTU
- • MENYOROTI AREA YANG DICURIGAI
- • TIDAK TERSEDIA UNTUK SEMUA TIPE TUGAS

STUDI INTERNAL TURNITIN (DATA 2023)

- • KLAIM AKURASI: SEKITAR 98% DALAM MENDETEKSI TEKS 100% AI
- • FALSE POSITIVE RATE: 1–2%
- • AKURASI MENURUN BILA TEKS HASIL CAMPURAN AI DAN MANUSIA

FAKTOR YANG MEMPENGARUHI AKURASI

- • JUMLAH TEKS (IDEAL >300 KATA)
- • TINGKAT PARAFRASA DAN EDITING OLEH MANUSIA
- • JENIS BAHASA DAN KONTEKS (LEBIH AKURAT DALAM BAHASA INGGRIS)

CONTOH KASUS NYATA

- • TEKS AI YANG TELAH DIUBAH → TERDETEKSI SEBAGIAN
- • TEKS MANUSIA DENGAN GAYA TERLALU FORMAL → KADANG DISALAHDETEKSI

BATASAN TEKNIS

- • TIDAK MENDETEKSI SUMBER AI SPESIFIK (MISAL CHATGPT VS GEMINI)
- • TIDAK BISA MENILAI NIAT PENGGUNAAN AI
- • BAHASA NON-INGGRIS MASIH TERBATAS

RISIKO FALSE POSITIVE DAN ETIKA

- • RISIKO PENOLAKAN ARTIKEL OLEH JURNAL INTERNASIONAL
- • PERLU PENJAGAAN ETIKA PENULIS

STRATEGI DOSEN

- • MENGGUNAKAN HASIL DETEKSI SEBAGAI INDIKATOR
- • MENDORONG TRANSPARANSI PENGGUNAAN AI DALAM ARTIKEL ILMIAH
- • MENJAGA INTEGRITAS AKADEMIK

PRAKTIK TERBAIK

- • MENGKOMBINASIKAN ANALISIS TURNITIN DENGAN PENILAIAN KUALITATIF
- • CEK PROSES BERPIKIR DAN DRAFT TULISAN
- • GUNAKAN RUBRIK YANG MENILAI ORISINALITAS IDE, BUKAN HANYA TEKS

- **KEBARUAN DAN KONTRIBUSI ASLI (NOVELTY & ORIGINAL CONTRIBUTION)**
- **"APA HAL BARU DI SINI YANG BENAR-BENAR MEMAJUKAN BIDANG ILMU INI?"**
- **PENELITIAN HARUS MENGISI RESEARCH GAP YANG NYATA, BUKAN SEKADAR MENGULANG PENELITIAN LAMA DI LOKASI BERBEDA.**
- **BENTUK KEBARUAN BISA BERUPA:**
  - **KONSEP, MEKANISME, ATAU MODEL BARU**
  - **METODE ATAU PENDEKATAN ANALISIS BARU**
  - **TEMUAN ATAU POLA BARU DARI DATA KOMPLEKS**
  - **SOLUSI TERHADAP MASALAH ILMIAH YANG BELUM TERSELESAIKAN**
- ✅ **NYATAKAN KEBARUAN SECARA JELAS DI BAGIAN ABSTRAK, PENDAHULUAN, DAN KESIMPULAN.**

What editors of high-impact journals typically look for when assessing a manuscript?

ALUR LOGIS DAN CERITA ILMIAH YANG KUAT

- MANUSKRIP HARUS MENGALIR SECARA LOGIS DAN KOHEREN, SEPERTI SEBUAH CERITA ILMIAH:
  - PENDAHULUAN: MENGAPA PENELITIAN INI DILAKUKAN
  - METODE: BAGAIMANA PENELITIAN DILAKUKAN
  - HASIL: APA YANG DITEMUKAN
  - DISKUSI: MENGAPA HASIL ITU PENTING
- EDITOR MENGINGINKAN ALUR YANG JELAS DAN MUDAH DIIKUTI, BUKAN POTONGAN INFORMASI ACAK.
- ✅ SETIAP PARAGRAF HARUS TERHUBUNG DENGAN BAIK DAN MENGARAHKAN PEMBACA KE IDE BERIKUTNYA.

ARTIKEL YANG POTENSIAL

- Pilih topik yang baru, relevan, dan punya *research gap* jelas.
- Bangun kolaborasi dengan peneliti bereputasi internasional.
- Gunakan literatur terbaru dan relevan dari jurnal bereputasi.
- Pastikan metodologi kuat, rinci, dan dapat direplikasi.
- Sajikan data dengan grafik dan tabel yang jelas serta menarik.
- Tulis hasil dengan argumentasi logis dan berbasis bukti.
- Gunakan bahasa akademik yang baik dan jelas.
- Pilih jurnal yang sesuai dengan ruang lingkup penelitian.
- Ikuti format dan panduan penulisan jurnal dengan teliti.
- Mulailah publikasi dari jurnal menengah untuk membangun reputasi.
- Patuhi etika publikasi dan hindari plagiarisme.

Tujuan	Tools
Cek jurnal	Scimago, JCR, DOAJ
Format referensi	Mendeley, Zotero
Cek plagiarisme	Turnitin, iThenticate
Cek grammar	Grammarly, QuillBot
Cek predatory	Beall's List, Cabells blacklist

SIMILARITY

- Ambang Batas yang Dapat Diterima: antara 10% dan 20%
- Investigasi Kesamaan: Editor dan peninjau biasanya menilai indeks kesamaan bersama dengan faktor-faktor lain, seperti konteks teks yang cocok dan kutipan atau referensi yang menyertainya.
- Sitasi Diri dan Frasa Umum: Sitasi diri dan kutipan yang diatribusikan dengan benar tidak boleh berkontribusi secara signifikan terhadap indeks kesamaan.
- Deklarasi artikel untuk kesamaan (Hasil uji Turnitin AI)

GRAFIK AKURASI TURNITIN AI DETECTION

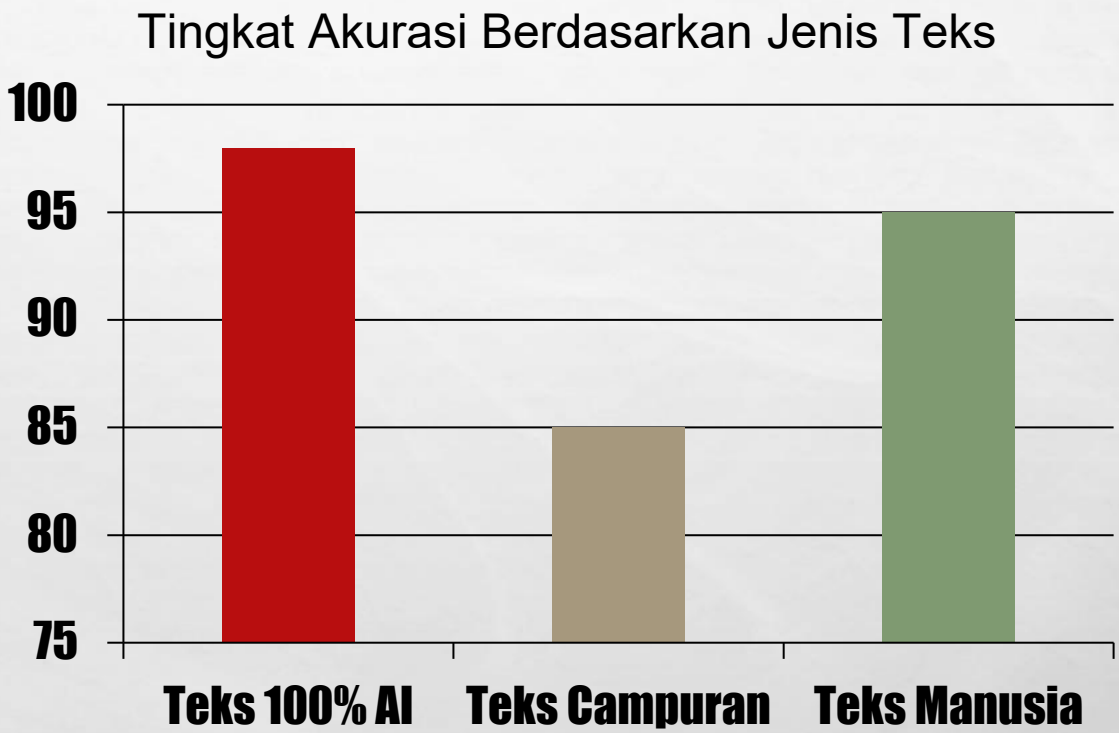
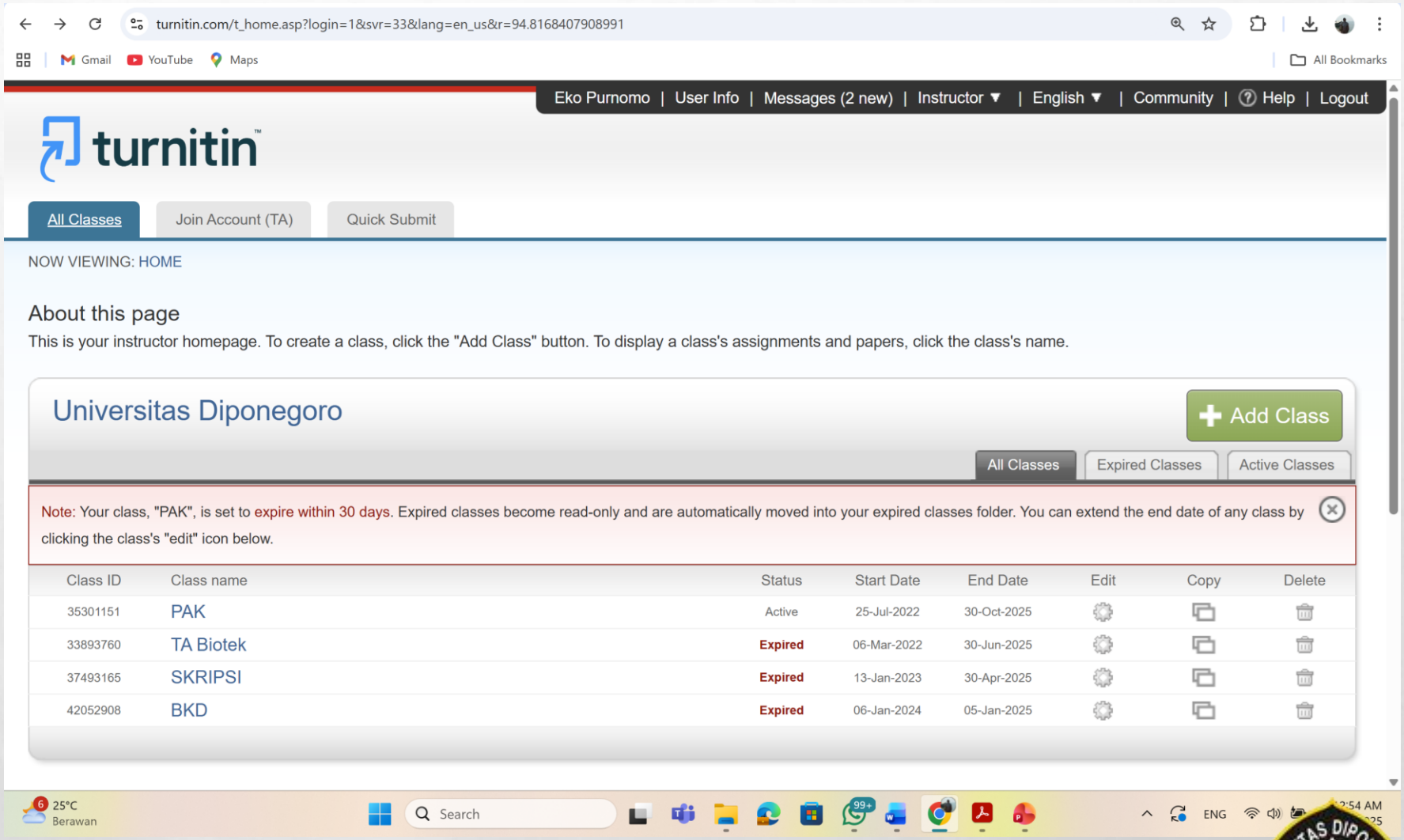


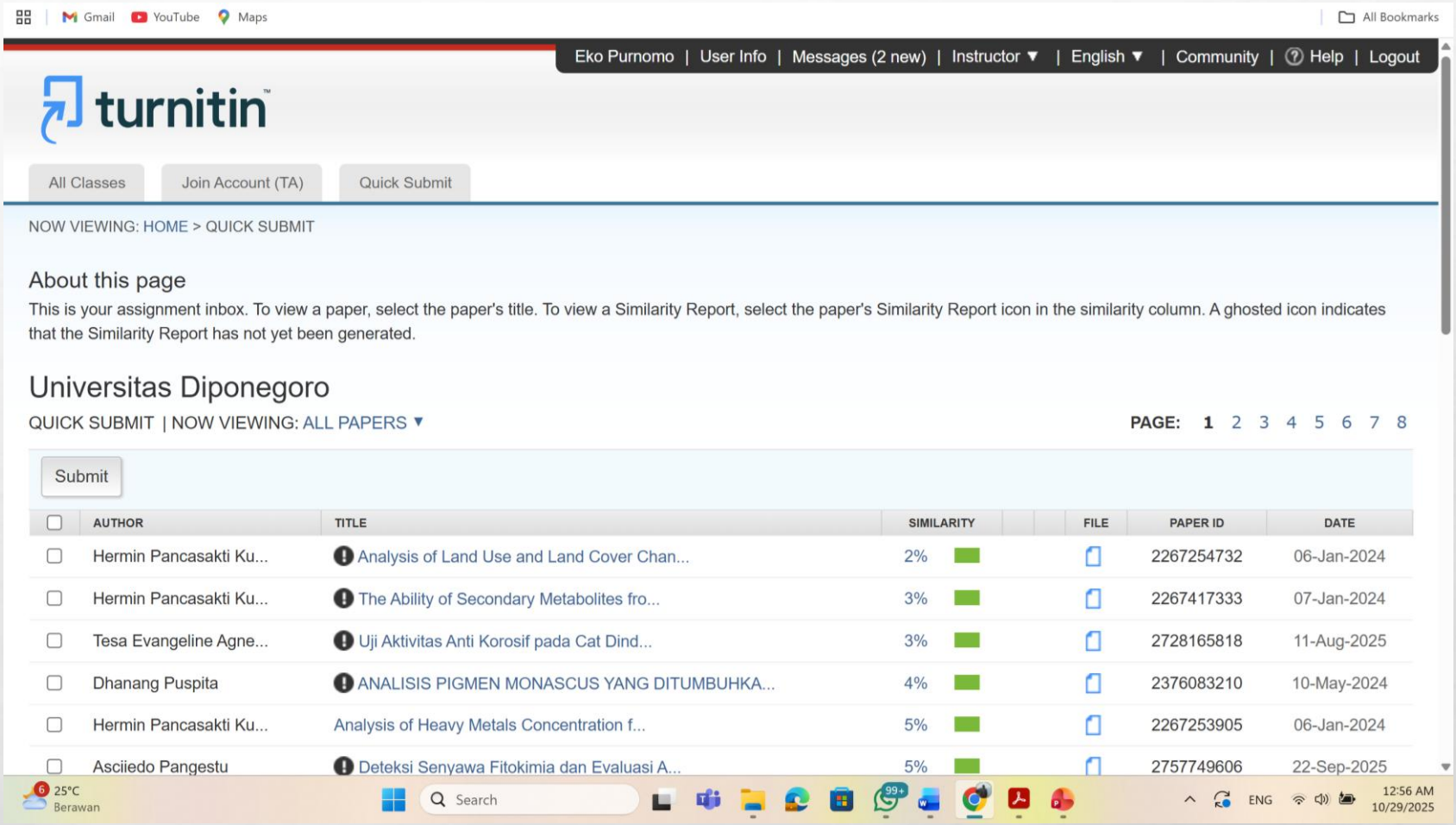
Diagram Proses Deteksi AI di Turnitin

1. Unggah Dokumen
2. Analisis Pola Bahasa oleh Model AI
3. Evaluasi Probabilitas Teks AI
4. Hasil Deteksi dan Laporan



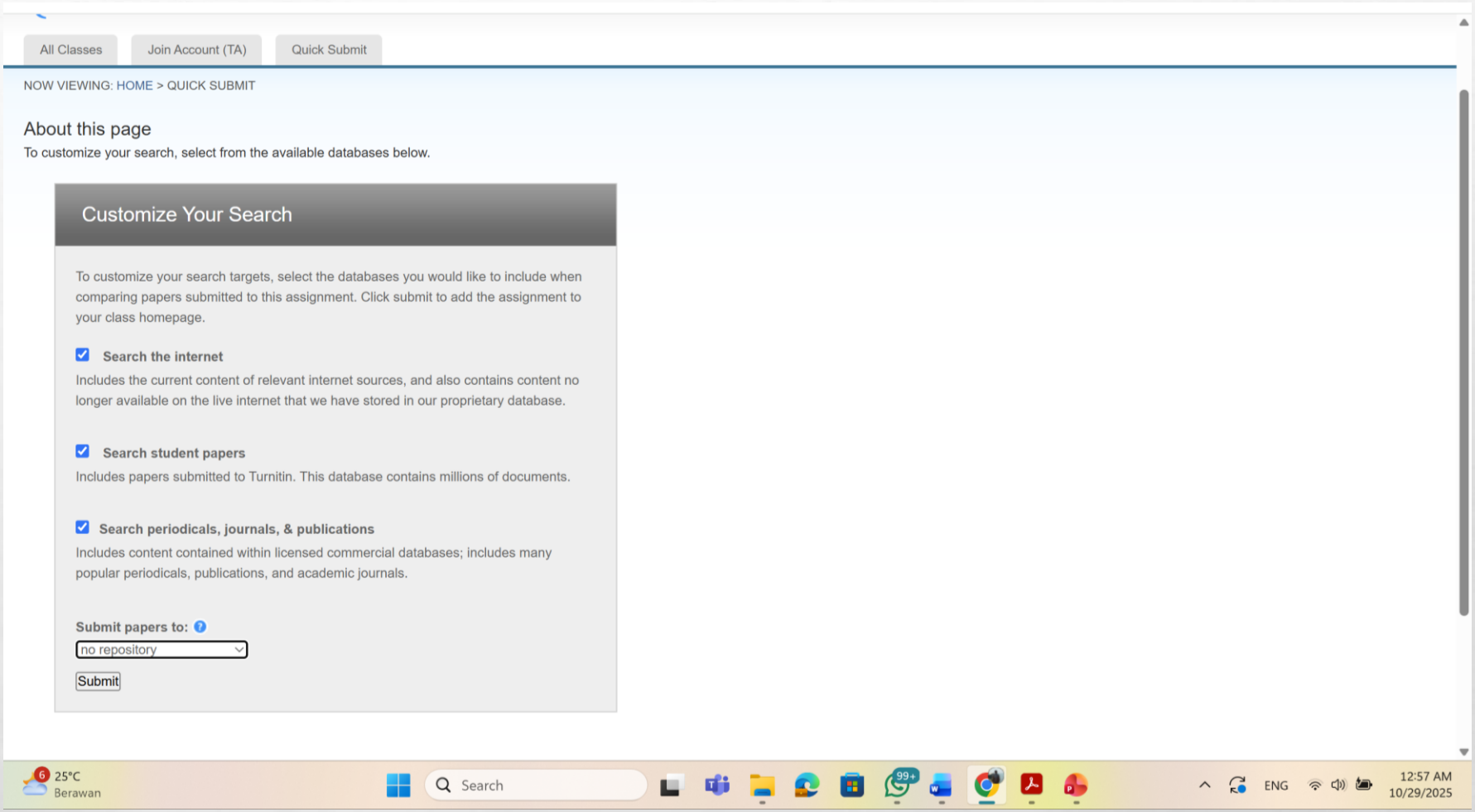
MASUK KE TURNITIN AI

UNIVERSITAS DIPONEGORO SEMARANG



MASUK KE TURNITIN AI

UNIVERSITAS DIPONEGORO SEMARANG



BILA HANYA INGIN CEK JANGAN LUPA PILIH NO REPOSITORY

Gmail YouTube Maps

Submit: Single File Upload

STEP

Please confirm that this is the file you would like to submit...

Author:
Hermin Pancasakti Kusumaningrum

Assignment title:
Quick Submit

Submission title:
Review Article: The Metallothionein (MT) Gene and Its Role in Metal Homeostasis, Oxidative Stress, and Biotechnological Applications

File name:
Review_Article_Metallothionein_Gene.pdf

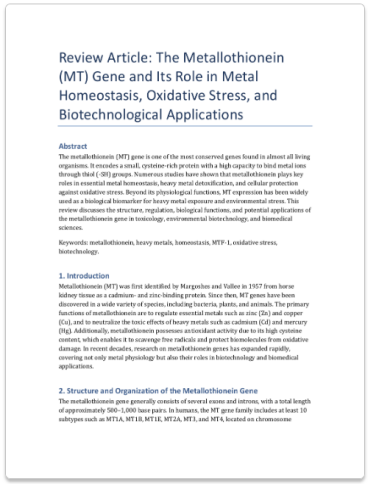
File size:
185.13K

Page count:
3

Word count:
681

Character count:
4160

« Page 1 »



Review Article: The Metallothionein (MT) Gene and Its Role in Metal Homeostasis, Oxidative Stress, and Biotechnological Applications

Abstract

The metallothionein (MT) gene is one of the most conserved genes found in almost all living organisms. It encodes a small, cysteine-rich protein with a high capacity to bind metal ions through thiol (–SH) groups. Numerous studies have shown that metallothionein plays key roles in essential metal homeostasis, heavy metal detoxification, and cellular protection against oxidative stress. Beyond its physiological functions, MT expression has been widely used as a biological biomarker for heavy metal exposure and environmental stress. This review discusses the structure, regulation, biological functions, and potential applications of the metallothionein gene in toxicology, environmental biotechnology, and biomedical sciences.

Keywords: metallothionein, heavy metals, homeostasis, MTF-1, oxidative stress, biotechnology.

1. Introduction

Metallothionein (MT) was first identified by Margoshes and Vallee in 1957 from horse kidney tissue as a cadmium- and zinc-binding protein. Since then, MT genes have been discovered in a wide variety of species, including bacteria, plants, and animals. The primary functions of metallothionein are to regulate essential metals such as zinc (Zn) and copper (Cu), and to neutralize the toxic effects of heavy metals such as cadmium (Cd) and mercury (Hg). Additionally, metallothionein possesses antioxidant activity due to its high cysteine content, which enables it to scavenge free radicals and protect biomolecules from oxidative damage. In recent decades, research on metallothionein genes has expanded rapidly, covering not only metal physiology but also their roles in biotechnology and biomedical applications.

2. Structure and Organization of the Metallothionein Gene

The metallothionein gene generally consists of several exons and introns, with a total length of approximately 500–1,000 base pairs. In humans, the MT gene family includes at least 10 subtypes such as MT1A, MT1B, MT1E, MT2A, MT3, and MT4, located on chromosome

We take your privacy very seriously. We do not share your details for marketing purposes with any external companies. Your information may only be shared with our third party partners so that we may offer our service.

Confirm Cancel

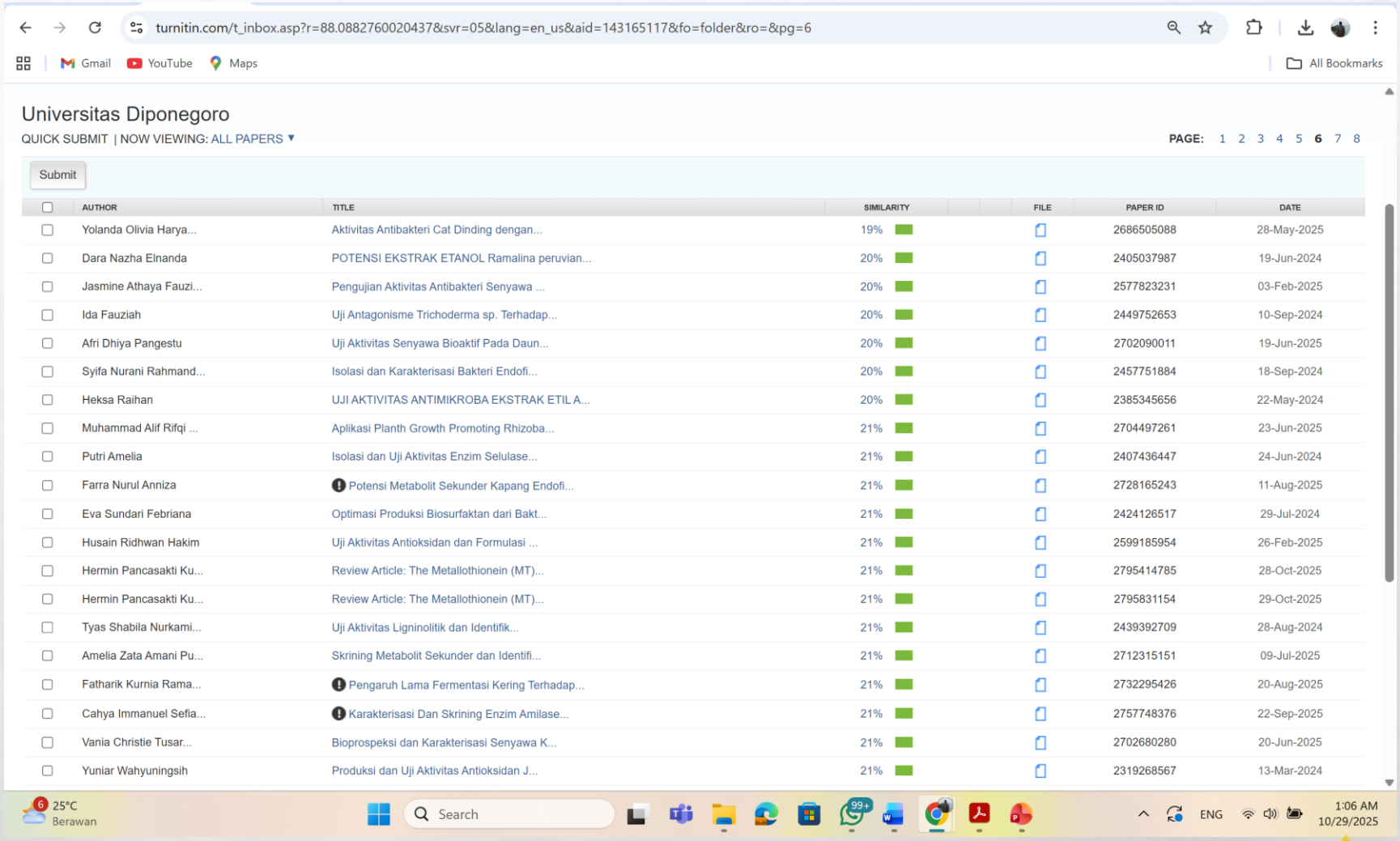
UNGGAH DOKUMEN, CONFIRM, GO TO ASSIGNMENT INBOX

6 Hari hujan yang... 25°C

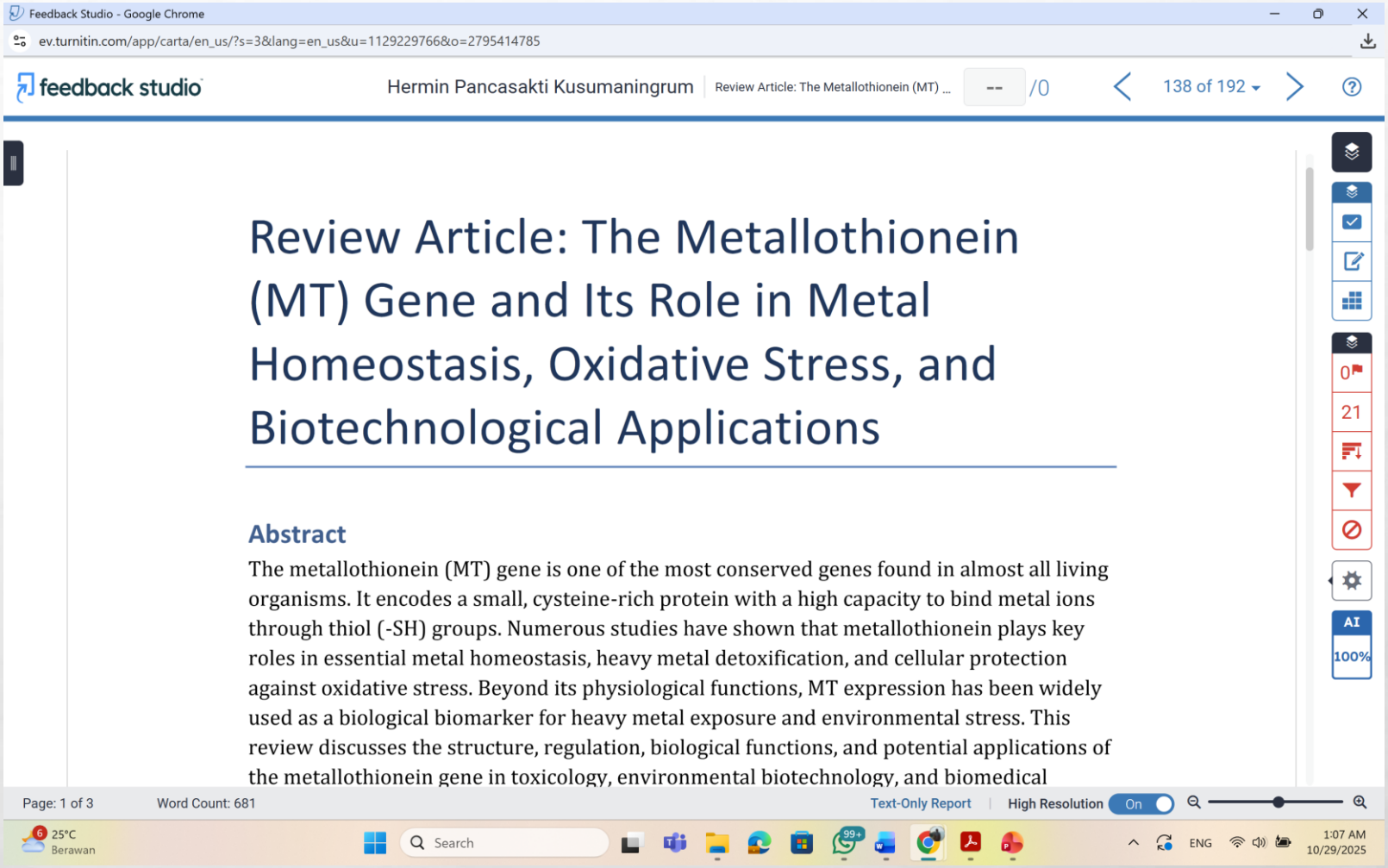
Search

99

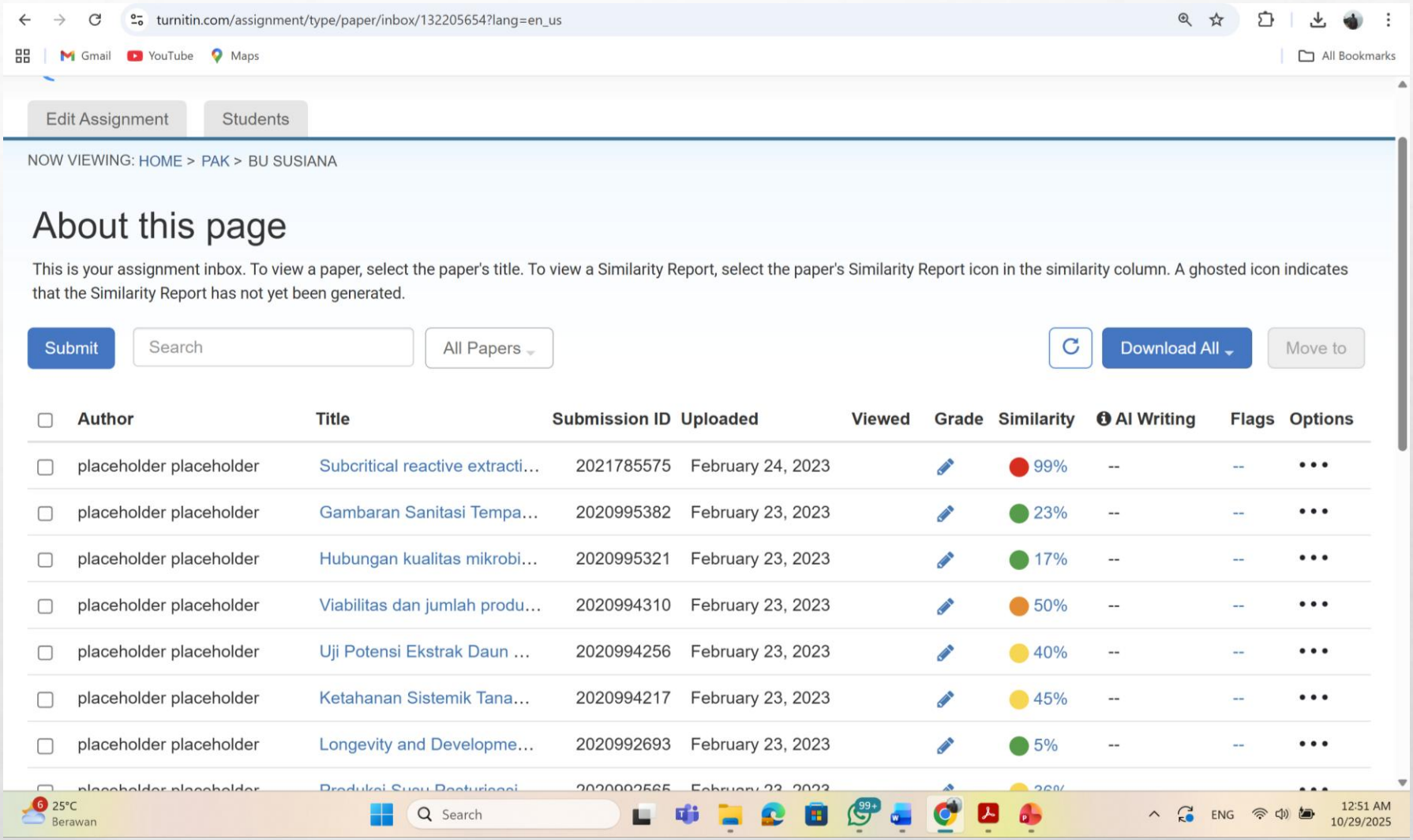
UNIVERSITAS DIPONEGORO SEMARANG



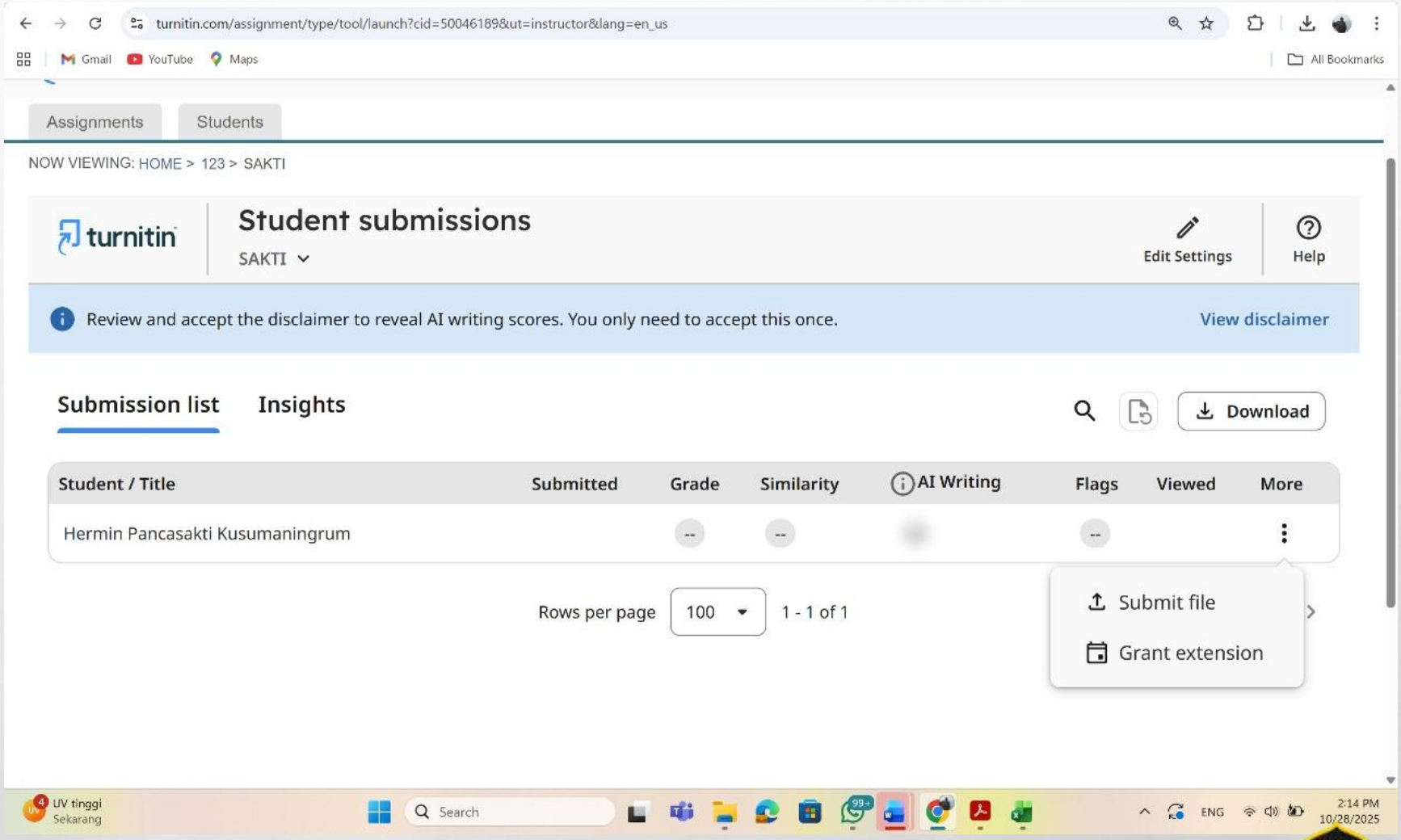
NILAI SIMILARITY



SIMILARITY 21%, AI 100%



MASUK KE TURNITIN AI



UNGGAH DOKUMEN YANG SUDAH ADA DI KOMPUTER

TAMPILAN LAIN TURNITIN AI

turnitin

Hermin Pancasakti Kusumaningrum
Review_Article_Metallothionein_Gene

Grade / 100

Download Details Help

Similarity 22% AI Writing 100% Flags | Feedback Rubrics

Review Article: The Metallothionein (MT) Gene and Its Role in Metal Homeostasis, Oxidative Stress, and Biotechnological Applications

Abstract

The metallothionein (MT) gene is one of the most conserved genes found in almost all living organisms. It encodes a small, cysteine-rich protein with a high capacity to bind metal ions through thiol (-SH) groups. Numerous studies have shown that metallothionein plays key roles in essential metal homeostasis, heavy metal detoxification, and cellular protection against oxidative stress. Beyond its physiological functions, MT expression has been widely used as a biological biomarker for heavy metal exposure and environmental stress. This tion, biological functions, and potential applications of , environmental biotechnology, and biomedical

Page 1 of 3 675 words 161%

Feedback

QuickMarks Summary

Search QuickMarks

C/S

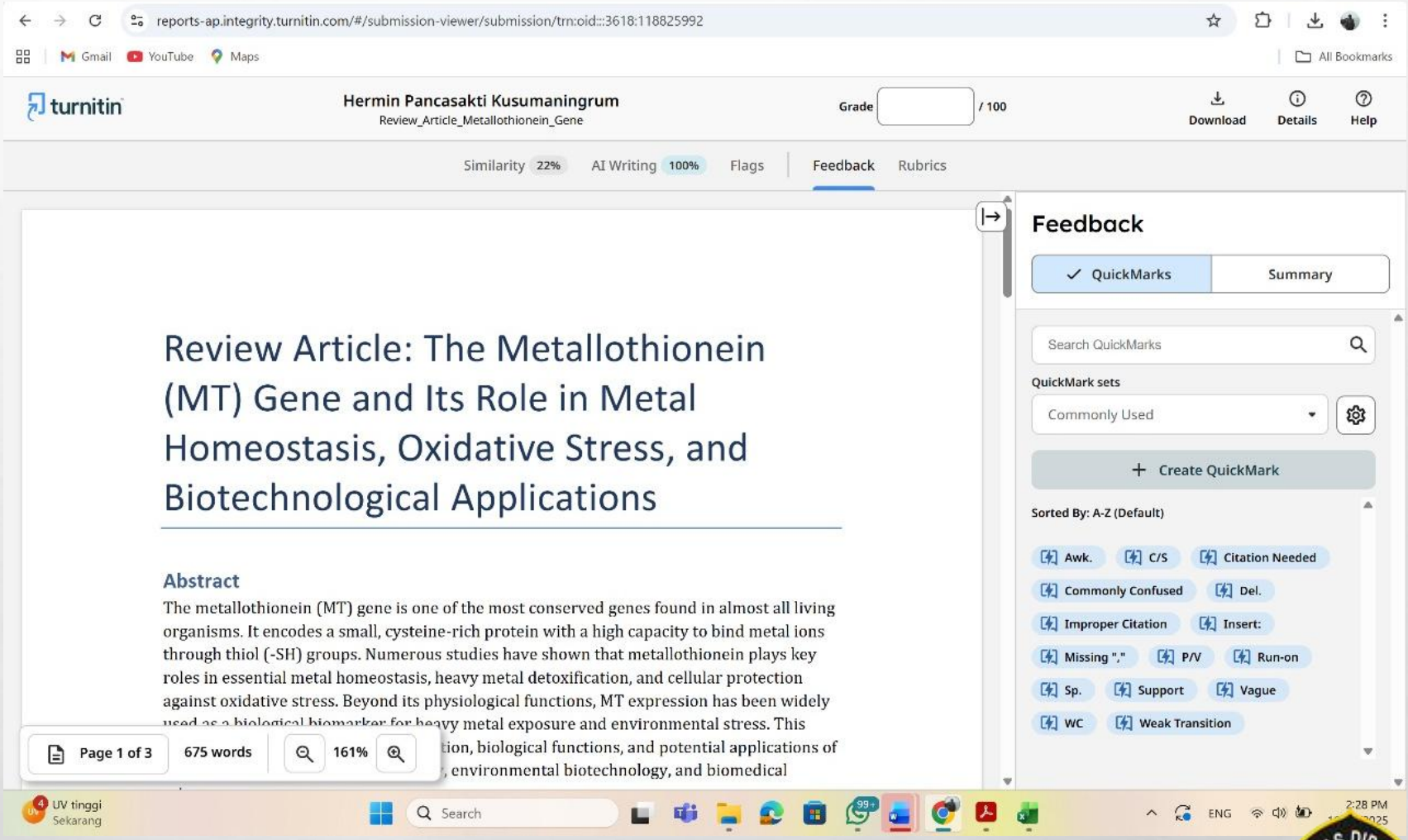
Descr: Comma splice:
A sentence must have both a subject and a main verb in order to be complete, but it cannot have more than one subject or main verb. A comma splice is a variety of run-on sentence that occurs when two complete sentences, each with its own subject and verb, are joined mistakenly by a comma. There are generally three methods of correcting this problem: 1) Replace the comma with a stronger mark of punctuation such as a period or semicolon, 2) use a coordinating conjunction ("and," "but," "or," "nor") to join the two constructions, or 3) make one of the two sentences a dependent construction by linking it to the other with a subordinating conjunction ("if," "when," "so that," "although," "because") or relative pronoun ("that," "which," "who," "whom," "whose").

UV tinggi Sekarang

Search

ENG 2:28 PM 10/28/2025

UNIVERSITAS DIPONEGORO SEMARANG


reports-ap.integrity.turnitin.com/#/submission-viewer/submission/trn:oid:::3618:118825992
Gmail
YouTube
Maps
All Bookmarks
turnitin
Hermin Pancasakti Kusumaningrum
Review_Article_Metallothionein_Gene
Grade
/ 100
Download
Details
Help
Similarity 22%
AI Writing 100%
Flags
Feedback
Rubrics
Review Article: The Metallothionein (MT) Gene and Its Role in Metal Homeostasis, Oxidative Stress, and Biotechnological Applications
Abstract
The metallothionein (MT) gene is one of the most conserved genes found in almost all living organisms. It encodes a small, cysteine-rich protein with a high capacity to bind metal ions through thiol (-SH) groups. Numerous studies have shown that metallothionein plays key roles in essential metal homeostasis, heavy metal detoxification, and cellular protection against oxidative stress. Beyond its physiological functions, MT expression has been widely
tion, biological functions, and potential applications of
, environmental biotechnology, and biomedical
Page 1 of 3
675 words
161%
Feedback
QuickMarks
Summary
Search QuickMarks
QuickMark sets
Commonly Used
Create QuickMark
Sorted By: A-Z (Default)
Awk.
C/S
Citation Needed
Commonly Confused
Del.
Improper Citation
Insert:
Missing ","
P/V
Run-on
Sp.
Support
Vague
WC
Weak Transition
UV tinggi
Sekarang
Search
ENG
2:28 PM

KESIMPULAN

- • TURNITIN AI DETECTION LEBIH EFEKTIF DAN TELITI
- • PENGGUNAAN DIPERLUKAN UNTUK MEMBUAT JURNAL KUALITAS TINGGI
- • DOSEN PERLU MEMAHAMI PROSES PENGGUNAAN TURNITIN AI UNTUK MENJAGA KUALITAS DAN ETIKA AKADEMIK

TANYA JAWAB DAN DISKUSI

- • PERTANYAAN, REFLEKSI, DAN BERBAGI PENGALAMAN ANTAR PESERTA

TERIMAKASIH