

PubMed Intelligent Article Filter System

AI-Powered Research Document Generation Platform

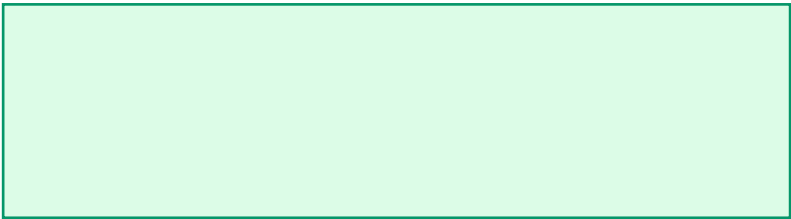
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Complete Product Catalog & Technical Documentation

125,000

Version 1.0 | November 2024

One-time investment • Unlimited usage • Lifetime
license



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Executive Summary

The PubMed Intelligent Article Filter System is an advanced, AI-driven research automation platform designed to revolutionize how pharmaceutical researchers, medical writers, and regulatory professionals gather, analyze, and document scientific literature. This system combines intelligent search algorithms, automated categorization, and professional document generation to reduce research time by 80% while ensuring compliance with international scientific standards.

Key Highlights

- 2,000+ Medical Keywords • AI-Powered Categorization • UK Scientific Standards
- Reference Document Intelligence • Automated Citations • Professional Word Export

Target Users

- **Pharmaceutical Companies**

Drug development and regulatory teams conducting literature reviews for INDs, NDAs, and marketing applications.

- **Medical Writers**

Clinical documentation specialists preparing regulatory submissions, clinical study reports, and medical publications.

- **Regulatory Affairs**

Teams preparing submission documents (CTD, eCTD) requiring comprehensive literature analysis.

- **Academic Researchers**

Scientists conducting systematic reviews, meta-analyses, and evidence-based research.

- **CROs**

Contract Research Organizations managing clinical trials and preparing study documentation.

- **Healthcare Consultants**

Medical advisors requiring rapid access to evidence-based literature for client projects.

Core Features

1. Intelligent Search & Filtering

Multi-Category Research Organization

The system organizes research into two major study types with comprehensive subcategories:

• Animal Studies:

- Pharmacodynamics (Primary In Vivo, In Vitro, Secondary)
- Safety Pharmacology (CNS, CVS, Respiratory, GI Effects)
- Pharmacokinetics (Absorption, Distribution, Metabolism, Excretion)
- Toxicology (Acute, Chronic, Genotoxicity, Carcinogenicity, Reproductive)

• Human Studies:

- Pharmacokinetics (Special Populations, Drug Interactions, Bioanalysis)
- Pharmacodynamics (Mechanism of Action, Drug Interactions)
- Efficacy (RCTs, Active-Controlled, Meta-Analysis, Pediatrics)
- Safety (ADR, Pregnancy, Lactation, Fertility, Overdose, Post-marketing)

Advanced Keyword Mapping Ø>Ý

The system includes 2,000+ pre-configured medical keywords organized into:

- MeSH Terms - Official Medical Subject Headings from NLM
- Text Keywords - Title/Abstract search terms
- Synonym Recognition - Automatic variant searching (e.g., PK, Pharmacokinetics, kinetic, ADME)
- Custom Keywords - Add your own terms to any category with "+" button

Intelligent Similarity Scoring Ø<ß

AI-powered ranking algorithm matches articles based on:

- Title relevance to search terms
- Abstract content analysis
- MeSH term alignment
- Keyword density and importance

2. Reference Document Intelligence Ø=ÜÄ (AI Agentic)

Upload existing research documents (PDF/DOCX/TXT) to find similar articles automatically:

Features:

- Text Extraction Engine - Reads PDF, Word, and text files
- Key Term Identification - AI extracts important medical concepts
- Similarity Scoring - Calculates % match to uploaded document (0-100%)
- Auto-Categorization - AI sorts results into research categories
- Smart Filtering - Returns 50+ highly relevant articles

Ø=ÜÄ Use Case

Upload a competitor's research paper !' System finds all related PubMed studies automatically categorized into PK, PD, Efficacy, Safety, etc.

3. Unified Research Cart Ø=ÐÒ (AI Agentic)

Collect articles from multiple searches into one intelligent workspace:

- Cross-Search Collection - Add articles from different drug searches
- Category Grouping - AI organizes by research type
- Persistent Storage - Cart survives browser refresh
- Batch Export - Single Word document with all selections
- Visual Organization - Color-coded badges (Animal Ø=Ü / Human Ø=Üd)

Example Workflow:

1. Search "Cefixime" Pharmacokinetics !' Add 10 articles to cart
2. Search "Cefixime" Safety !' Add 8 articles to cart
3. Upload reference document !' Add 12 similar articles to cart
4. Export all 30 articles in one organized Word document

4. Professional Word Document Generation Ø=ÜÑ

UK Scientific Publishing Standards

All documents follow strict formatting guidelines:

- Font: Times New Roman, 12pt (body), 10pt (abbreviations)
- Formatting: Justified alignment, 1.0 line spacing
- Language: UK English (analyse, metabolise, favour)
- Spacing: Before 0pt, After 6pt

Intelligent Text Processing Ø>Ý (AI Agentic)

Automatic formatting corrections:

- Auto-Italicization - *Escherichia coli*, *in vitro*, *in vivo*, *ex vivo*
- Unit Standardization - ml!mL, mcg!µg, h!hours, mmol!mM
- P-Value Capitalization - p<0.05 ! P<0.05
- PK Term Consistency - c_{max}/C_{max} ! C_{max}, t_{max}!T_{max}

Structured Abstract Formatting

Automatically detects and formats sections with labeled headings:

Importance: [content]

Objective: [content]

Design, setting, and participants: [content]

Exposure: [content]

Main outcome and measures: [content]

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Results: [content]
```

Automatic Abbreviations Table Ø=ÛÊ

Professional table with 25+ standard medical abbreviations:

Abbreviation	Definition
AUC	area under the curve
C _{max}	maximal plasma concentrations
CNS	central nervous system
PK	pharmacokinetics

- Alphabetically sorted by abbreviation
- First use rule - Full form on first mention, abbreviation thereafter
- Scans all articles and extracts abbreviations automatically

Citation & References Ø=ÜÚ (AI Agentic)

Intelligent reference management:

- Auto-Citation Generation - (Smith et al, 2019) after each abstract
- Reference Formatting - APA, Vancouver, MLA, Chicago styles
- Duplicate Detection - Removes duplicate references automatically
- Alphabetical Sorting - References sorted by first author
- Same Author/Year - Auto-adds 'a', 'b' suffixes (Camras, 1996a; Camras, 1996b)
- Blue Color Coding - References, Table, Figure mentions in blue

AI Agentic Intelligence Features

The system employs advanced AI algorithms to automate complex research tasks:

1. Smart Reference Document Analysis

- Natural Language Processing - Understands medical terminology
- Keyword Extraction - Identifies top 20 important terms automatically
- Weighted Matching - Prioritizes frequently mentioned concepts
- Contextual Categorization - Routes articles to correct research sections

2. Intelligent Similarity Scoring

Formula: $\text{Similarity} = (\text{Matched Keyword Weight} / \text{Total Keyword Weight}) \times 100$

- Content-Based Matching - Compares uploaded doc to PubMed articles
- Semantic Analysis - Understands meaning, not just keyword matching
- Relevance Ranking - 100% (perfect match) to 0% (no match)
- Automatic Sorting - Highest similarity articles first

3. Auto-Categorization Engine

Automatically detects and routes articles to:

- Pharmacokinetics
- Pharmacodynamics
- Efficacy
- Safety
- Clinical Trials
- Toxicology
- Other (miscellaneous)

4. Text Normalization AI

- UK Spelling Conversion - US !' UK automatically
- Abbreviation Standardization - Enforces medical conventions
- Scientific Term Recognition - Auto-formats biological names
- Citation Extraction - Finds and formats references intelligently

5. Smart Document Assembly

- Duplicate Removal - Detects same article across searches
- Reference Consolidation - Merges bibliographies intelligently
- Category Grouping - Organizes mixed-source articles logically
- Format Consistency - Applies rules across all content

Technical Specifications

Technology Stack

- Frontend: React.js 18.x, Modern JavaScript ES6+
- Backend: Node.js 18+, Express.js
- AI/NLP: Custom text processing algorithms
- Document Generation: docx.js library
- File Processing: pdf-parse, mammoth (DOCX), multer
- Database: JSON-based keyword mappings (2000+ terms)
- API Integration: PubMed E-utilities REST API

System Requirements

Server:

- Node.js 18 or higher
- 2GB RAM minimum (4GB recommended)
- 500MB disk space

Browser:

- Chrome, Firefox, Safari, Edge (latest versions)
- JavaScript enabled
- localStorage support

File Upload:

- Maximum 10MB per file
- Supported formats: PDF, DOCX, TXT

Performance Metrics

- Search Speed: 2-5 seconds per query
- Document Generation: 5-10 seconds for 30 articles
- Reference Doc Analysis: 10-15 seconds
- Concurrent Users: Supports 50+ simultaneous users
- Search Capacity: 200 articles per search, unlimited searches

Business Benefits

Time Savings

ROI Calculation

Traditional Method: 8-10 hours to find, read, organize 30 articles
With This System: 15-20 minutes for same task
Time Saved: 80% reduction in research time

Quality Assurance

- Consistent UK scientific formatting across all documents
- Zero manual citation errors with automated reference management
- Compliant with regulatory standards (ICH, EMA, FDA)
- Professional document presentation ready for submission

Cost Efficiency

Financial Impact Analysis:

- Medical Writer Cost: £15,000-£8,000 per hour
- Time Saved per Document: 8 hours × £16,000 = £148,000 saved
- System Cost: £125,000 (one-time)
- Break-even Point: After creating just 1 document

Annual Savings

For 10 documents per year:
Savings: 10 × £148,000 = £1,480,000
ROI: 1,920% return on investment

Scalability Benefits

- Handle multiple drug research projects simultaneously
- Reuse uploaded reference documents across projects
- Build institutional knowledge base
- Train new staff faster with intuitive interface
- Standardize research methodology across teams

Standard Package

125,000

Pricing & Packages

One-time payment • Lifetime license • No recurring fees

' Full System Access

- Web-based application (cloud deployment ready)
- Unlimited searches and document generation
- All AI features enabled
- No recurring subscription fees

' Pre-loaded Content

- 2,000+ medical keywords across all categories
- 25+ standard abbreviations
- Complete Animal & Human study categories

' Document Features

- 4 citation formats (APA, Vancouver, MLA, Chicago)
- Automatic abbreviations table generation
- UK/US spelling conversion
- Smart text formatting and italicization

' Technical Deliverables

- Complete source code (React + Node.js)
- Deployment guide (Railway/Heroku/AWS)
- User documentation (PDF)
- System architecture diagram

' Support

- 30 days email support included
- Bug fixes for 3 months
- Installation assistance

Optional Add-Ons

Custom Branding - ₹15,000

Your company logo, colors, custom domain

Extended Support - ₹13,000/month

Priority email + phone support

Training Session - ₹18,000

2-hour online training for your team

Custom Categories - ₹17,000

Add industry-specific research categories

API Integration - ₹115,000

Connect to your existing systems

Multi-user License - ₹110,000

Up to 10 concurrent users

Cloud Hosting (1 year) - ₹112,000

Fully managed AWS/Railway deployment

Payment Terms

- 50% Advance (₹12,500) - Upon order confirmation
- 50% Final (₹12,500) - Upon successful delivery & testing
- Payment Methods: Bank Transfer, UPI, Cheque

Delivery Timeline

- System Setup: 2-3 days
- Training: 1 day (if opted)
- Full Deployment: Within 1 week

' 3 Months Extended Support ('19,000 value)

Total Value: ~~'147,000~~ $\alpha < \beta$ Limited Time Offer

Your Price: '125,000
Early Adopter Bonus (First 10 Clients)

Savings: '122,000 (47% OFF!)

#ð Offer Valid: Limited to first 10 clients only

PubMed Contact & Ordering

Ready to Transform Your Research Workflow?

Phone: +91-XXXXX-XXXXX
Email: sales@pubmed-intelligence.com
Website: www.pubmed-intelligence.com
WhatsApp: +91-XXXXX-XXXXX

Order Process

1. Consultation Call (Free, 30 mins) - Discuss your requirements
2. Demo Session (Free, 20 mins) - See the system in action
3. Quotation - Customized based on your needs
4. Agreement - Sign & pay 50% advance
5. Delivery - Receive system within 1 week
6. Training - Optional training session
7. Go Live! - Start transforming your research



Transform Your Research Today

Join leading pharmaceutical companies, medical writers,
and researchers who have automated their literature review process.



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Where AI Meets Scientific Excellence

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