Medical Terminology Translation System

Overview

Automated AI-powered translation workflow for medical and anatomical terms from English to 8 languages, maintaining accurate medical terminology.

Workflow Process

Form Submission → Fetch Terms → Filter Data → Loop Items → AI Translation → Update Sheet

Key Components

1. Form Trigger

- Accepts submission to initiate translation process
- Starts automated workflow

2. Google Sheets Integration

- **Source**: "SciePro 3d Anatomy - List II - translations"
- **Sheet**: "Terminologica Anatomica (TA)"
- Fetches terms where translations are empty

3. Data Filter

- Filters rows between 10,000 and 13,000
- Only processes rows with non-empty English terms
- Ensures valid data for translation

4. Batch Processing

- Loops through filtered items sequentially
- Processes one term at a time

5. AI Translation Engine

- **Model**: OpenAI GPT-5.2
- Translates English medical terms to 8 languages
- Uses structured JSON output for consistency

6. Output

- Updates spreadsheet with all translations
- Matches rows by unique identifier
- Preserves existing English term

Supported Languages

1. **Japanese** (日本語)
2. **Spanish** (Español)
3. **Portuguese (Brazil)** (Português)
4. **Russian** (Русский)
5. **Chinese** (中文)
6. **Arabic** (العربية)
7. **French** (Français)
8. **German** (Deutsch)

Translation Rules

✅ **DO:**

- Use proper medical terminology for each language
- Provide 2 valid terms separated by " / " if applicable
- Return only valid JSON format
- Maintain anatomical accuracy

❌ **DON'T:**

- Include English words in translations
- Add explanations or extra text
- Use informal language

Input Format

English Term from spreadsheet (e.g., "Median", "Vertical")

Output Format

```json
{
  "english": "median",
  "japanese": "正中",
  "spanish": "mediano",
  "portuguese_br": "mediano",
  "russian": "срединный",
  "chinese": "正中",
  "arabic": "أوسط",
  "french": "médian",
  "german": "median"
}
```

Technical Details

- **Platform**: n8n workflow automation
- **AI Model**: OpenAI GPT-5.2
- **Output Parser**: Structured JSON schema
- **Integration**: Google Sheets API
- **Processing**: Sequential with structured output
- **Status**: Inactive (activate when needed)

Setup Requirements

1. n8n instance
2. Google Sheets API credentials
3. OpenAI API key (GPT-5.2 access)
4. Access to translation spreadsheet

Import Instructions

1. Import `Translation.json` into n8n
2. Configure Google Sheets credentials
3. Add OpenAI API credentials
4. Verify spreadsheet ID and sheet name
5. Adjust row filter range if needed (default: 10000-13000)

6. Activate workflow when ready

Processing Range

- **Default**: Rows 10,000 to 13,000
- **Configurable**: Adjust filter conditions in Filter1 node
- Processes only rows with empty translation fields

Notes

- Workflow is currently inactive
- Uses latest GPT-5.2 model for enhanced accuracy
- Structured output ensures consistent JSON format
- Updates only matched rows using unique identifier
- Supports batch translation of multiple terms
- Maintains medical terminology standards across all languages