

# MICAD

NIH Roadmap  
Molecular Imaging &  
Contrast Agent Database



The MICAD ([www.micad.nih.gov](http://www.micad.nih.gov)) is a key component of the National Institutes of Health (NIH) Roadmap (<http://nihroadmap.nih.gov>) with a primary mission to serve as a freely accessible online source of scientific information regarding *in vivo* molecular imaging and contrast agents. The MICAD database provides information regarding, but is not limited to, agents used for positron emission tomography (PET), single photon emission computed tomography (SPECT), magnetic resonance imaging (MRI), ultrasound (US), computed tomography (CT), optical imaging, planar radiography, and planar gamma imaging. The MICAD staff provides critical and timely scientific information to enhance the discovery and application of imaging agents in the biological and clinical sciences. The MICAD is a single source of systematically cataloged, comprehensive, and cumulative information regarding imaging agents. It is available for **free** and easily accessible online.

## Database Structure, Process and Information

Information in MICAD is available as a book chapter easy-to-read textual format that is online based, concise, up-to-date, and printable in a PDF format. The MICAD scientific imaging editors perform a comprehensive literature search for each agent and compile the information into a chapter format that includes a chemical structure or protein/nucleotide and gene information etc. regarding the imaging/contrast agent and its target. After peer review the chapter is edited, formatted, processed using an in-house software and uploaded onto the database.

Information in the chapters is provided under five major sections: Background, Synthesis, *in vitro* studies, Animal studies (rodents, other non-primate mammals, non-human primates), and Human studies. The database is fully indexed and searchable. Literature references are linked to abstracts in MEDLINE/PubMed, and the chemical structures are linked to the chemical substance abstracts in PubChem. **Each MICAD chapter has an assigned PubMed Identification Number and is citable in other publications as described at [www.micad.nih.gov](http://www.micad.nih.gov).**

The database is continuously revised and updated. All molecular imaging and contrast agents reported in peer-reviewed literature (as of March 2010 there were ~4000) for which *in vivo* data is available will eventually be included in the database. MICAD is a dynamic program that actively seeks feedback and recommendations. Submission of agents for inclusion into MICAD is valued and encouraged. For more information, please contact: [micad@ncbi.nlm.nih.gov](mailto:micad@ncbi.nlm.nih.gov)

## Guest Author Program

The MICAD Team encourage individuals involved in the development or use of the various imaging agents (for all modalities, PET, SPECT, MRI, Optical etc.) to assist in writing chapters for the database as Guest Authors. The author(s) are given due credit for writing the chapter(s) and the scientific imaging editors are available to provide any necessary guidance or help to write the chapter(s). For details please visit [www.micad.nih.gov](http://www.micad.nih.gov).

## MICAD eAnnouncement

The MICAD editors periodically email an eAnnouncement to individuals involved in the research, development and application of imaging and contrast agents. The eAnnouncement lists all the latest chapters uploaded onto the database and is available to anyone interested in receiving the announcement. Members of the imaging community can register to receive the eAnnouncement by contacting the MICAD editors at [micad@ncbi.nlm.nih.gov](mailto:micad@ncbi.nlm.nih.gov) or by visiting the MICAD web site at: [www.micad.nih.gov](http://www.micad.nih.gov).

## Main Features of MICAD:

- **FREE** access, fully indexed and searchable
- Concise, up-to-date information with relevant references linked to PubMed and PubChem

## How to contact MICAD

e-mail: [micad@ncbi.nlm.nih.gov](mailto:micad@ncbi.nlm.nih.gov) or [www.micad.nih.gov](http://www.micad.nih.gov)