

Wednesday 16 June 16h30-19h30

Mini-symposium:

What could make a chemical entity a potential drug ?

16h30	Welcome (coffee / tea)	
17h00	P.M. Tulkens (UCL)	Introduction
17h05	C. Lipinski Melior Discovery, Waterford, CT	Rules, filters, pharmaceutical principles and future trends in drug discovery
18h00	P. Chaltin – F. Ooms Centre for Drug Design and Discovery (CD3), KU-Leuven	CD3, the investment fund for innovative early-stage drug discovery in Belgium
18h30	Open Discussion (moderated by J. Poupaert)	
19h00	Reception	

Venue: Auditoire J. Maisin, Auditorios centraux, Secteur des Sciences de la santé (Louvain-en-Woluwe)
avenue E. Mounier 50, 1200 Bruxelles – access: <http://sites.uclouvain.be/semiphar/plsiauce.htm>

LOUVAIN DRUG RESEARCH INSTITUTE (LDRI)

> UCL > SECTORS > MEDICAL SECTOR > Louvain Drug Research Institute

**> LOUVAIN DRUG
RESEARCH INSTITUTE**

- > Objectives and mission statements
- > Research themes
- > Full members
- > Structure and organization
- > Technology transfer / Services

TRAINING & FELLOWSHIP

- > Doctorate

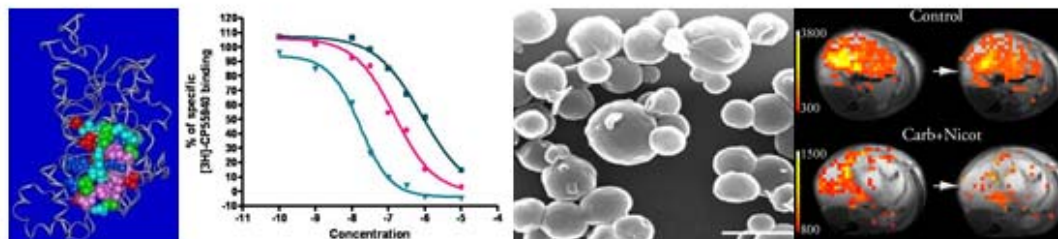
**SCIENTIFIC
COMMUNICATIONS**

- > Seminars LDRI
- > Other seminars

Louvain Drug Research Institute

The general objective of the Louvain Drug Research Institute is to develop fundamental and / or applied research projects in the field of drugs.

The research axes encompass the discovery and the conception of new active molecules, the study of their pharmacological profile, their metabolism and toxicity, their formulation, and the optimization of their use. These research projects are supported by two technological platforms: mass spectrometry analyses and pre-clinical magnetic resonance.



Direction : [Marie-Paule Mingeot](#) (spokeswoman), [Véronique Préat](#), [Bernard Gallez](#)

SEMINARS LDRI

> Nano-enabled drug delivery of the isoniazid citral-derivative JVA001 enhances Mycobacterium tuberculosis intracellular killing

June 14, 2010

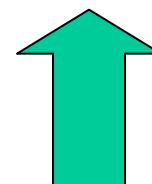
Dr Tatiany Faria, Federal University of Santa Catarina (UFSC), Florianópolis, Brazil

[> more]

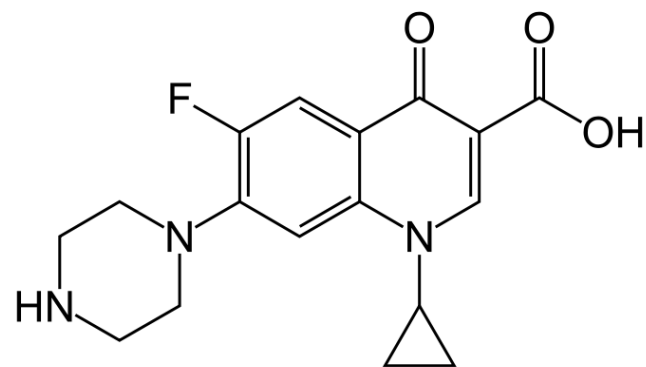
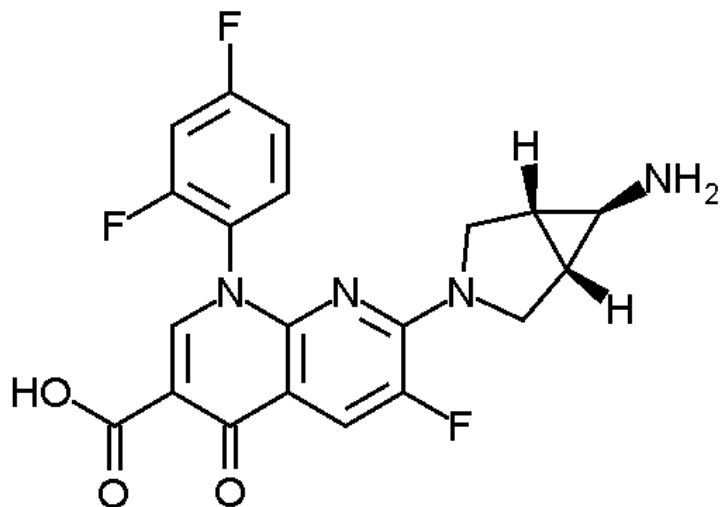
> Mini-Symposium : What could make a chemical entity a potential drug

June 16, 2010

[> more]



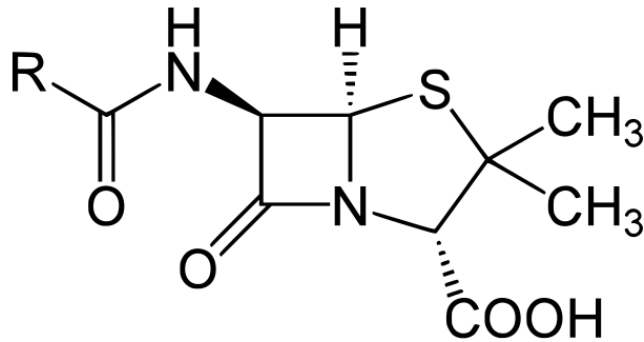
What is the problem ?



Which one of these two antibiotics

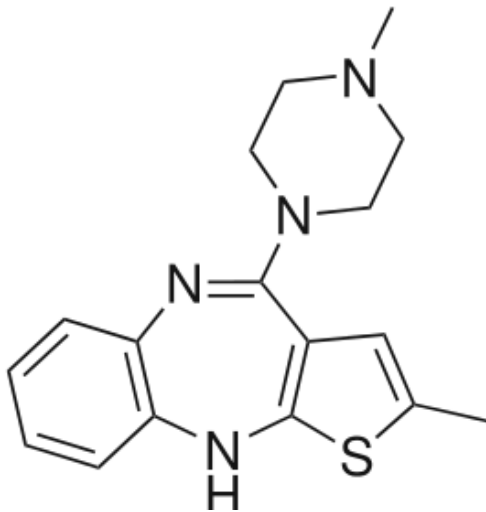
- has the broadest spectrum ?
(and did you rationally designed it for this property ?)
- will eventually be withdrawn for
hepatic toxicity ?
(and could you have predicted this ?)

What is the problem ?



Would you ever develop this very fragile molecule ?

And what about this one ?

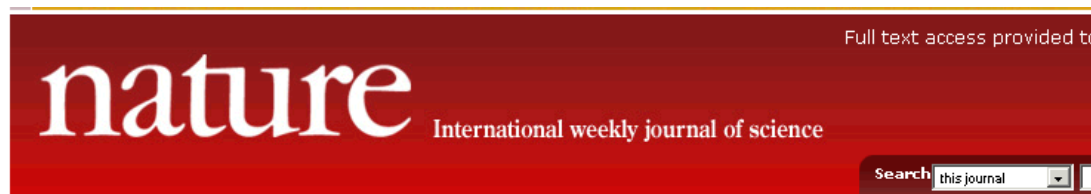


As with all neuroleptic drugs, olanzapine can cause [tardive dyskinesia](#) and rare, but life-threatening, [neuroleptic malignant syndrome](#).

Other recognised side effects may include:

- Restlessness
- [akathisia](#) inability to remain still^[21]
- dry mouth
- [dizziness](#)
- [irritability](#)
- [sedation](#)
- [insomnia](#)
- [constipation](#)
- [urinary retention](#)
- [orthostatic hypotension](#)
- weight gain
- increased appetite
- runny nose
- low blood pressure
- impaired judgment, thinking, and motor skills
- impaired spatial orientation
- impaired responses to senses
- [seizure](#)
- trouble swallowing
- dental problems and discoloration of teeth
- missed periods
- problems with keeping body temperature regulated
- [apathy](#), lack of emotion
- Endocrine side effects have included [hyperprolactinemia](#), [hyperglycemia](#), and [diabetes mellitus](#)
- [Hyperprolactinemia](#) causing sexual dysfunction, menstrual irregularities, and osteoporosis

A step towards a solution ...



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Journal content

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Insight

Nature 432, 855-861 (16 December 2004) | doi:10.1038/nature03193; Published online 15 December 2004

review article

Navigating chemical space for biology and medicine

Christopher Lipinski¹ & Andrew Hopkins²

Despite over a century of applying organic synthesis to the search for drugs, we are still far from even a cursory examination of the vast number of possible small molecules that could be created. Indeed, a thorough examination of all 'chemical space' is practically impossible. Given this, what are the best strategies for identifying small molecules that modulate biological targets? And how might such strategies differ, depending on whether the primary goal is to understand biological systems or to develop potential drugs? ▲ Top

The image shows the website of Katholieke Universiteit Leuven. The header is blue with the university's name and logo. Below the header is a navigation bar with links: About K.U.Leuven, Education, Research, Admissions, Living in Leuven, Alumni, Libraries, Faculties, Departments & Schools. The main content area has a sidebar on the left with links: International cooperation, LRD, Research collaboration, Intellectual property, Spin-off, Thematic centres, Leuven high-tech region, Financial monitoring, Appointing staff. The main content area has a heading "CD3 - Discovery of innovative medicines" and a paragraph describing the Centre for Drug Design and Discovery (CD3).

KATHOLIEKE UNIVERSITEIT
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International cooperation

LEUVEN
RESEARCH & DEVELOPMENT

LRD

Research collaboration

Intellectual property

Spin-off

Thematic centres

Leuven high-tech region

Financial monitoring

Appointing staff

LRD > Thematic centres > CD3

CD3 - Discovery of innovative medicines

The Centre for Drug Design and Discovery (CD3) is an investment fund and technology transfer platform aimed at promoting the discovery and development of innovative medicines for all kinds of diseases. The centre achieves this aim by building further on the enormous pool of basic knowledge, innovation and technology of universities and spin-off companies. By providing the necessary expertise and financial resources, CD3 ensures that fundamental biomedical research carried out by universities and small biotech companies is translated into more usable results and promising molecules for new medicines. These new, potential medicines can then be further developed by pharmaceutical companies or form the basis for new spin-off companies. With this work method and philosophy, CD3 bridges the gap between academic innovative research and the pharmaceutical industry.