



KATHOLIEKE UNIVERSITEIT  
**LEUVEN**



# K.U.Leuven – China PhD Excellence Fund

Shanghai, 19 Sept 2011



# PhD Scholarships

# K.U.Leuven China PhD Excellence Fund

Scholarships for PhD studies at the top research centers of K.U.Leuven

Scholarships cover students' expenses for the duration of their study (normally four years):

- a monthly allowance (between €1.347 - €1.762)
- social security covering health insurance, occupational hazard & occupational illness
- student card which gives access to all student facilities
- PhD students don't pay tuition fee





# Participating Research Groups

# Science, Engineering and Technology



# Participating Research Groups

- Wave Propagation & Signal Processing – ElectroMagnetic and Elastic Waves
- Molecular Design and Synthesis, Department of Chemistry
- Microelectronics and Sensors (MICAS), Department of Electrotechnical Engineering
- Centre of Microbial and Plant Genetics (CMPG)
- Center for Processing Speech and Images (PSI), Department of Electrical Engineering
- Centre of Plasma Astrophysics
- Animal Physiology and Neurobiology
- COSIC - COmputer Security and Industrial Cryptography
- Nuclear Solid State Physics", Institute for Nuclear and Radiation Physics

# Specific projects can be found on the website



## 阿伦伯格科学，工程设计和技术博士学院

阿伦伯格科学，工程设计和  
技术博士学院

鲁汶国际生物医学科学博士  
学院

鲁汶国际人文和社会科学博  
士学院



鲁汶中国博士生助学金申请  
步骤

阿伦伯格科学，工程设计和技术博士学院位于黑韦勒阿伦伯格校区中心，一栋老式的塞莱斯蒂那康维特建筑中。它的职能是作为一个博士研究生在科学，工程设计及生物工程科学方面的研发中心，也是一个对科学，工程设计及技术方面不同领域进行研究的最佳场所。阿伦伯格博士学院鼓励和支持研发人员尽他们最大的努力去获取知识，并把所学的知识用于促进世界发展。

科学，工程设计和技术方面的研究，突破了传统的界限，以主题为中心分成不同的研究领域。

这些研究中心主要有四个主题：信息，事件，生命和习惯。从无限到原子，从单细胞到人类，人造系统，主要的研究课题包括生命科学，计算和信息科学，环境可持续性，人类居住区，农业，食品研究，基因组学和生物，纳米科学和纳米加工，新材料，能源和工程最优化。

科学，工程设计和技术博士学院不同科研小组根据鲁汶-中国优秀博士基金的要求提供不同的课题：

1. [Research Group "Wave Propagation and Signal Processing - ElectroMagnetic and Elastic Waves"](#)
2. [Research Group "Molecular Design and Synthesis", Department of Chemistry](#)  
科研小组自有项目：
  - 2.1
  - 2.2
  - 2.3
  - 2.4
  - 2.5 [Project: Synthesis of betulin analogues with biological activity](#)
3. [Research Group "Microelectronics and Sensors \(MICAS\)", Department of Electrotechnical Engineering](#)
4. [Research Group "Centre of Microbial and Plant Genetics \(CMPG\)"](#)
5. [Research Group "Center for Processing Speech and Images \(PSI\)", Department of Electrical Engineering](#)
6. [Research Group "Centre of Plasma Astrophysics"](#)
7. [Research Group "Animal Physiology and Neurobiology"](#)
8. [Research Group "COSIC - COmputer Security and Industrial Cryptography"](#)
9. [Research Group "nuclear solid state physics", Institute for Nuclear and Radiation Physics](#)



# Example of Project Description



## Synthesis of betulin analogues with biological activity

PhD Project offered by the research group "Molecular Design and Synthesis":

### Description:

Betulin is a triterpene dialcohol, belonging to the lupene family, that is abundant in *Betula* species (more than 10 % by weight in the dried bark, 50-82 w% of the dry birch bark extract). As such it is an inexpensive, renewable source of highly functionalized chirality. Nowadays the main research interest focuses on the medicinal applications of betulin and its analogues, including their anti-HIV and antitumor activities.

We plan to carry out one or more of the following modifications to the betulin(ic acid) molecule :

- 1) Functionalisation of betulin derivatives via the "click reaction"
- 2) Heterocyclic rings fused to the A-ring
- 3) Heterocycles conjugated to the 28-position
- 4) Heterocycles conjugated to the 29 or 30-position
- 5) Rearrangement reaction of betulin derivatives

The effect of these modifications on the biological activities will be studied in collaboration with biomedical research groups.

### Key Words:

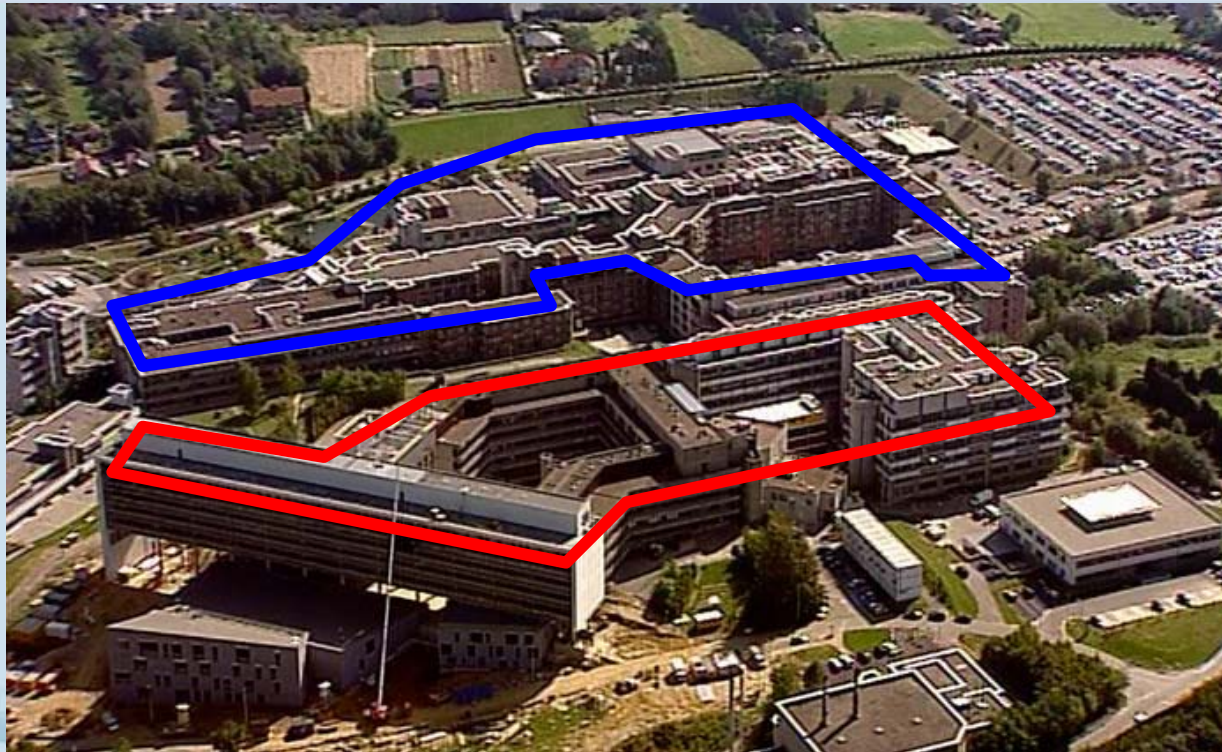
natural products, organic synthesis, heterocyclic derivatives, biological activity

Project Duration: 4 years

Supervisor: Prof. Wim Dehaen: ([wim.dehaen@chem.kuleuven.be](mailto:wim.dehaen@chem.kuleuven.be))



# Biomedical Sciences



**Hospital**  
**Academic**



# Participating Research Groups

- Research Group “Neurodegenerative Diseases”
- Research Group “Laboratory of Angiogenesis and Neurovascular link”, Vesalius Research Center (VRC), VIB
- Research Group “Gastrointestinal Motility and Sensitivity”, Translational Research Center for Gastrointestinal Disorders (TARGID);
- Research Group “The Laboratory of Ion Channel Research”, Department of Molecular and Cell Biology
- Research Group “Stem Cell Institute Leuven (SCIL)”
- Research Group “In vivo Molecular Imaging Research consortium – IMIR”
- Research Group “Move-Age: European program on prevention of mobility loss with ageing”

# Specific projects can be found on the website



鲁汶大学介绍

## 鲁汶国际生物医学科学博士学院

阿伦伯格科学、工程设计和  
技术博士学院

鲁汶国际生物医学科学博士  
学院

鲁汶国际人文和社会科学博  
士学院

鲁汶中国博士生助学金申请  
步骤



鲁汶国际生物医学科学博士学院，是一个对健康人类和疾病充满着强烈的兴趣并且热爱研究，有活力，有积极性的人们提供沟通平台的地方。博士研究生进入到一个挑战性的环境，这里有最先进的研究设施，并且可以同国际知名的科学家们分享他们的研究成果。

一步一步地，博士研究生们了解到生物医学科学家们如何了解人体，以及作为人类，与环境的相互作用。

他们也会体验到，生物医学研究如何利用新型药物或者制药方式来提高人类的健康。

加入到十个主题性的跨学科项目中的任何一个，博士研究生都有机会参与到一个综合性的培训活动，从而扩大学术范围，突破传统思路。

工作室和培训课程可以让博士研究生提高个人技术，例如沟通和自我管理。经过四年密集的学习，这个培训项目会造就一名新的生物医药博士，有着宝贵的知识和技术经验，并且知道如何去实现个人目标，以及处理同其他科学家和社会之间的关系。

如果你希望在生物医药科学领域有一番作为，并且和我们一样有着解决人类健康和疾病的热情，那么你会在鲁汶找到激励你去实现雄心壮志的理想环境。

我们诚挚地邀请你上我们的网站作进一步的了解 ([qbiomed.kuleuven.be/phd](http://qbiomed.kuleuven.be/phd)) 并且我们希望可以收到你的信息。作为一名博士研究生，所做的不仅仅是总结出新的观念或者理论知识，做出新的研究，书写论文或者是写

书。

它可以让你成为一名处理问题，找出解决方案的专家。经过这个过程，你可以了解到与其他科学家合作，同科学爱好者或者这个社会去探讨你的研发成果是多么的重要。

发展能力，成果和关系的态度是博士生研究的一个重要部分。除了学习时间，举例来说，每天与导师和其他研究生，博士生的联系，博士学院也提供工作室和实验室经验以改善技术。

生物医药科学院不同科研小组根据鲁汶-中国优秀博士基金的要求提供不同的课题:

### 1. [Research Group "Neurodegenerative Diseases"](#)

科研小组自有项目:

- [1.1 Molecular and cell biology studies of neurodegenerative disease.](#)

### 2. [Research Group "Laboratory of Angiogenesis and Neurovascular link", Vesalius Research Center \(VRC\), VIB.](#)

科研小组自有项目:

- [2.1 The link between metabolism and angiogenesis: a novel anti-angiogenic strategy?](#)
- [2.2 Oxyn sensors: players in neuro-vascular metabolism.](#)

### 3. [Research Group "Gastrointestinal Motility and Sensitivity", Translational Research Center for Gastrointestinal Disorders \(TARGID\).](#)

科研小组自有项目:

- [3.1 Brain-gut interactions in the regulation of visceral pain and food intake: a functional brain imaging approach](#)

### 4. [Research Group "The Laboratory of Ion Channel Research", Department of Molecular and Cell Biology](#)



# Example of Project Description



## Leuven International Doctoral School *Biomedical Sciences*

**Research on Chronic liver diseases caused by hepatitis virus B, C and E using liver cells created from human embryonic stem cells and so-called induced pluripotent stem cells**

PhD Project offered by the research group “Stem Cell Institute Leuven (SCIL)”

### Description:

Chronic liver diseases caused by hepatitis virus B, C and E affect more than 500 million people worldwide. Research to develop new drugs and/or vaccines is hampered because of lack of representative disease models. These three viruses can, indeed, only infect human liver cells, which are difficult to maintain in culture, and animal models can also not be used. Currently human liver tumor cell lines are being used to evaluate hepatitis virus infection and develop antiviral drugs, but tumor cells are obviously not identical to normal liver cells.

Here we will use liver cells created from human embryonic stem cells and so-called induced pluripotent stem cells. We hypothesize that such liver cells will more closely resemble healthy liver cells than the liver cancer cells used now. There is already preliminary evidence that stem cell-derived liver cells can be infected with hepatitis C. The aims of this project are to optimize the cell cultures for infection with hepatitis B, C, E and other viruses that affect the liver. Furthermore, the effect of the viral infection on the liver cells will be analyzed, which might lead to a better understanding of the infection and possible therapies.

Contact: Prof. Catherine Verfaillie ([catherine.verfaillie@med.kuleuven.be](mailto:catherine.verfaillie@med.kuleuven.be))  
Co-supervisors Prof. Johan Neyts

Website: <http://www.kuleuven.be/scil/>



Step by step

# The PhD Fund – step by step

STEP 1: Visit [www.kuleuven.be/cn](http://www.kuleuven.be/cn) for an overview of participating top research groups and offered PhD positions within the K.U.Leuven China PhD Excellence Fund.  
Online application is possible until 15 November 2011.  
You can apply for max 3 positions.

STEP 2: Eligible candidates are invited for a first interview by Leuven professors: 12 - 16 December 2011.  
Invitations for the interview will be sent out on 2 December 2011.

# The PhD Fund – step by step

STEP 3: A high level academic team from K.U.Leuven conducts interviews in Shanghai & Beijing with these candidates  
-> from 12 - 16 December 2011.

Interviewed candidates showcase their exceptional academic background, social & intercultural skills and English proficiency.



STEP 4: Selected applicants are presented to the participating top K.U.Leuven research groups and departments  
-> December/January 2012.

# The PhD Fund – step by step

STEP 5: Possibilities for direct communication between candidates and their K.U.Leuven promotor. (by email or skype): in depth content discussion of the research  
-> beginning of January 2012.

STEP 6: Final offers/decisions are sent out to all candidates  
-> mid February 2012.







# Application Procedure

# Application Procedure

## Eligibility criteria:

- applicants should have a Master degree or should be graduating from their Master in 2011
- applicants should have excellent knowledge of English (comparable to an IELTS score of min. 7 or TOEFL ibt of 100)
- applicants should have an excellent academic record and a profound interest in academic research



# Application Procedure

Interested candidates should register and fill in the online application form.

*On the application form fill in following fields as indicated:*

- Page 1 - Status: Doctoral programme
- Page 1 – Are you applying for a vacant PhD position? Please give the exact number: K.U.Leuven China PhD Excellence Fund
- Page 1 – Please give the exact title of the project as on the website of the doctoral school: Name of the Research Group you are applying for + (max.) 3 projects you are interested in
- Page 6 : - Are you applying for a scholarship in order to attend this programme: yes – K.U.Leuven China PhD Excellence Fund
- Page 7 - Additional information and motivation. Please give your motivation: **Leave this field blank; describe your motivation in a separate document of at least half a page which you upload as an attachment (mandatory). State clearly why you want to pursue PhD studies at K.U.Leuven and why you consider yourself as a suitable candidate for these projects.**

# Application Procedure

## Is explained in Chinese on the website of the K.U.Leuven China PhD Excellence Fund

Applications will be open from:

15 September 2011 until 15 November 2011

### 2. 可以申请的项目/空缺

所有鲁汶中国博士生助学金可以申请的项目（一般为四年）都是预先经过财务批准的。这包括每个月的保证津贴（在€1347.00欧元和€1762.00欧元之间），其中社会保险包括健康保险，职业危害职业病保险，学生卡可以使用一切学校的设施及免费乘坐公车。不包括的金额有大学注册费用€276.40欧元（可以在博士项目的第一年和最后一年支付）。

如需了解更多顶级研究小组的空缺，请访问

- [人类和社会科学博士生学院](#)
- [阿伦伯格博士生学院](#)
- [生物医药科学博士生学院](#)

### 3. 如何申请

#### • 入学资格标准:

- 申请人需要有硕士学位或2011年即将毕业的硕士应届生
- 申请人英语良好（雅思成绩最少7分或托福网考100分）
- 申请人专业成绩良好并且对学术研究有着远大的兴趣。

#### • 申请步骤:

**1. [申请并且激活您的访客账户](#)**

**2. [下载申请表](#)**

**3. [递交申请表](#)**

**4. [上传所有要求的文件](#)**

### 4. 选择标准

申请人的评估会由一小组由鲁汶大学顶级专家组成的小组来到中国对申请人进行面试。评估会在以下方面的基础上进行：一组鲁汶大学校友所组成的团队会协助他们 评估会在以下方面的基础上进行：

- 申请人的专业信息：获得的证书，成绩和排名。

# Application Procedure

Students and personel from the Association K.U.Leuven don't have to register for an external account!

## Selfregistration

Firstname: \*

Lastname: \*

E-mail address: \*

Check e-mail address: \*


Birthdate: \*

Place of birth: \*

Country: \*

Number in the national register: \*   
For Belgians only

Verification



Enter the letters you see \*

Register

\* denotes required field

# Application Procedure

Once the application form has been submitted, you can upload the required documents:

- Copy of obtained diploma's (Bachelor / Master) in Chinese AND English
- Copy of transcripts (Bachelor / Master) in Chinese AND English
- English CV
- Proof of English Proficiency (preferably TOEFL or IELTS)
- Motivation Letter

Once you have uploaded all these documents, don't forget to submit your application.

# Documents to be uploaded

## 3. 递交申请表

- 当您完成表格的时候，保存并且使用网上的 'submit' 键进行发送。
- 'Submit'发送键在位于最后的页面，发送成功之后，您会收到确认窗口，如果发送失败，您需要将表格保存于您的计算机，并且在之后试着再次发送。
- 注意：只有在连接网络的情况下才能进行表格的发送。
- 发送表格之后的两个工作日呢，您同样也会收到从鲁汶大学系统所发出的申请表确认邮件，如果您没有收到确认邮件，请将您的申请表以PDF格式发送至 [vicky.wandels@int.kuleuven.be](mailto:vicky.wandels@int.kuleuven.be)，并且告知您至今都未曾收到确认邮件。

## 4. 上传所有要求的文件

- 在您递交申请表并且收到自动回复确认信之后，您的申请表将会成功的被载入到我们的数据库，您必须使用网上申请系统，并且以额外的附件形式上传所有要求的文件：
- 现有证书中英文复印件（本科/硕士）
- 现有成绩单中英文复印件（本科/硕士）
- 英文简历
- 英文能力证明（最好提供托福或雅思成绩）
- 自荐信（建议不要和申请表填写在一起，但是可以上传一个不小于一个页数的独立文件，自荐信要求回答以下问题：
  - Why do you want to pursue doctoral studies?
  - Why do you want to study in Europe?
  - Why do you consider yourself to be the best candidate for a PhD position at K.U.Leuven?
  - What research topic do you want to work on while studying at the K.U.Leuven?
  - Give a short overview of your track record. Do you think you have the right qualifications to start a PhD in the field of study that you indicated?
- 上传所有附件，您必须登录 [Web application Applicant](#)
- 附件必须以PDF格式上传，有必要的話，所有附件都可以被删除并且再次上传。
- 把您的文件都转变成PDF格式，在网上可以找到免费的PDF转换工具，像是 [PrimoPDF](#) 或 [CutePDF](#)。

## 4. 选择标准

申请人的评估会由一小组由鲁汶大学顶级专家组成的小组来到中国对申请人进行面试。评估会在以下方面的基础上进行：一組鲁汶大学校友所组成的团队会协助他们 评估会在以下方面的基础上进行：

- 申请人的专业信息：获得的证书，成绩和排名。
- 英语熟练程度
- 交际和跨文化交流的技巧
- 研究的兴趣和专业性



# Selection



# Selection criteria

The evaluation of the applications will be done by a small top notch team of K.U.Leuven professors who will travel to China to interview the Chinese PhD candidates. Evaluation will be based on

- Academic profile of the applicant: obtained diploma's, grades and rankings
- English proficiency
- Social and intercultural skills
- Research interest and expertise
- Motivation for international study



More information?

# Contact

- 中国: Mr. David Xu  
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上海200040  
Tel : + 86 21 61373241  
Email: [david.xu@kuleuven.be](mailto:david.xu@kuleuven.be)
  
- 比利时: Ms. Vicky Wandels  
亚洲联络员  
鲁汶国际办公室  
Naamsestraat 63/5001  
3000 Leuven  
Tel: +32 16 32 42 37 24  
Email: [vicky.wandels@int.kuleuven.be](mailto:vicky.wandels@int.kuleuven.be)

# To get in touch with students and alumni

- 鲁汶中国学生联盟网站: [www.csal.be](http://www.csal.be)
- 鲁汶中国校友俱乐部网站:  
[www.kuleuven.be/international/chinalumni](http://www.kuleuven.be/international/chinalumni)

