Potential novel targets: Protease-activated receptors in idiopathic pulmonary fibrosis
Lin, Cong

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: http://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
POTENTIAL NOVEL TARGETS:
Protease-Activated Receptors In Idiopathic Pulmonary Fibrosis

By
Cong Lin
c.lin@amc.uva.nl

On Tuesday
15th September
at 14:00 in the Agnietenkapel
Oudezijds Voorburgwal 231
Amsterdam

Followed by a reception
in the Agnietenkapel

Paranimfen:
Dita Prasetyanti
p.r.prasetyanti@amc.uva.nl
Siyi Feng
c5stella@hotmail.com
Potential novel targets:
Protease-Activated Receptors In
Idiopathic Pulmonary Fibrosis

Cong Lin
Potential novel targets: Protease-Activated Receptors In Idiopathic Pulmonary Fibrosis

The research described in this thesis was performed at the Center for Experimental and Molecular Medicine (CEMM) at the Academic Medical Center in Amsterdam, the Netherlands

Author   Cong Lin
Cover design    Vivi and Eelco Roos
Layout    Eelco Roos
Print    Ridderprint

The print of this thesis was financially supported by the Academic Medical Center, Amsterdam, the Netherlands.

Copyright © 2015, Cong Lin, Amsterdam the Netherlands. All rights reserved. No part of this thesis may be reproduced or transmitted in any form or by any means, without express written permission from the author.
Potential novel targets:
Protease-Activated Receptors In Idiopathic Pulmonary Fibrosis

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor
aan de Universiteit van Amsterdam
op gezag van de Rector Magnificus
prof. dr. D.C. van den Boom
ten overstaan van een door het College voor Promoties ingestelde commissie,
in het openbaar te verdedigen in de Agnietenkapel
op dinsdag 15 september 2015, te 14:00 uur

door

Cong Lin

geboren te Hebei, China
Promotiecommissie:

Promotor: Prof. Dr. T. van der Poll Universiteit van Amsterdam

Copromotores: Dr. C. A. Spek Universiteit van Amsterdam
Dr. K. S. Borensztajn Universiteit van Amsterdam

Overige leden: Dr. B. van den Blink Erasmus Universiteit Rotterdam
Prof. Dr. B. Crestani Institut National de la Santé et de la Recherche Médicale
Prof. Dr. J. C. M. Meijers Universiteit van Amsterdam
Prof. Dr. P. H. Reitsma Universiteit Leiden
Prof. Dr. P.J. Sterk Universiteit van Amsterdam
Prof. Dr. C.J.M. de Vries Universiteit van Amsterdam

Faculteit der Geneeskunde
To my parents
**Contents**

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>General introduction and outline of the thesis</td>
<td>9</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>Targeting protease activated receptor (PAR)-1 with P1pal-12 limits bleomycin-induced pulmonary fibrosis</td>
<td>31</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Pharmacological targeting of protease activated receptor-2 affords protection from bleomycin-induced pulmonary fibrosis</td>
<td>53</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Protease-activated Receptor (PAR)-2 Is Required For PAR-1 Signaling In Pulmonary Fibrosis</td>
<td>71</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Protease activated receptor-1 regulates macrophage-mediated pulmonary fibrosis</td>
<td>95</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>High endogenous activated protein C levels afford protection against bleomycin-induced pulmonary fibrosis</td>
<td>115</td>
</tr>
<tr>
<td>Chapter 7</td>
<td>Summary</td>
<td>133</td>
</tr>
<tr>
<td></td>
<td>Discussion</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>Nederlandse samenvatting</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>Acknowledgements</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>Portfolio</td>
<td>145</td>
</tr>
<tr>
<td></td>
<td>List of publication</td>
<td>147</td>
</tr>
</tbody>
</table>