



UNIVERSITÀ DI PARMA

Dipartimento di Scienze degli Alimenti e del Farmaco

# The Research internship in Pharmacy and Industrial Pharmacy degrees in the Italian University scenario: an analysis of Parma University

*Silvia Pescina*, Cristina Padula, Sara Nicoli, Patrizia Santi  
silvia.pescina@unipr.it

# UNIVERSITY OF PARMA - DEPARTMENT OF FOOD AND DRUG

Faculty of Pharmacy

2012

Department of Pharmacy

2017

Department of Food and Drug

Pharma area

5-years master degrees in

- Pharmacy
- Pharmaceutical Chemistry and Technology (CTF) = Industrial Pharmacy

1,330 students (Pharmacy 820, Industrial Pharmacy 511)

170 graduates per year (Pharmacy 115; Industrial Pharmacy 55)

64 teaching staff



source: [www.unipr.it](http://www.unipr.it)

# MASTER DEGREES

	Pharmacy	Industrial Pharmacy <i>Pharmaceutical chemistry and technology - CTF</i>
5 years		
300 ECTS		
thesis (from 2 <sup>nd</sup> semester of the 5 <sup>th</sup> year)	Bibliographic* (15 ECTS)	Bibliographic not allowed
	Research internship (27 ECTS, 675 hrs) <b>optional</b>	Research internship (27 ECTS, 675 hrs) <b>compulsory</b>
Final mark is expressed in a given number of grades out of 110, based on student career; when research internship takes place abroad, student receives 1 grade as bonus.		
ECTS European Credit Transfer System *student earns 12 missing ECTS by attending integrative academic activities		

source: [www.unipr.it](http://www.unipr.it)

# METHODS

## *Research internship*

***Focus on:*** number of graduates, academic disciplines involved, extra-academic institution, international mobility, language of the manuscript.

***Time frame:*** 2013-2017 (calendar year)

***Sources:***

- 1) Student registry office
- 2) Pharmacy and Industrial Pharmacy master degree councils
- 3) University library system ([www.biblioteche.parma.it](http://www.biblioteche.parma.it))
- 4) University of Parma ([www.unipr.it](http://www.unipr.it))
- 5) AlmaLaurea ([www.almalaurea.it](http://www.almalaurea.it))

# Number of graduates/1

	Pharmacy		Industrial Pharmacy <i>Pharmaceutical chemistry and technology - CTF</i>	
<i>Year</i>	<i>Total</i>	<i>Mean final mark (110)</i>	<i>Total</i>	<i>Mean final mark (110)</i>
<b>2013</b>	<b>88</b>	<b>96</b>	<b>54</b>	<b>101</b>
<b>2014</b>	<b>105</b>	<b>94</b>	<b>50</b>	<b>99</b>
<b>2015</b>	<b>118</b>	<b>93</b>	<b>60</b>	<b>99</b>
<b>2016</b>	<b>134</b>	<b>93</b>	<b>72</b>	<b>101</b>
<b>2017</b>	<b>134</b>	<b>91</b>	<b>39</b>	<b>99</b>
<b>Total 5 years</b>	<b>579</b>	<b>93</b>	<b>275</b>	<b>100</b>

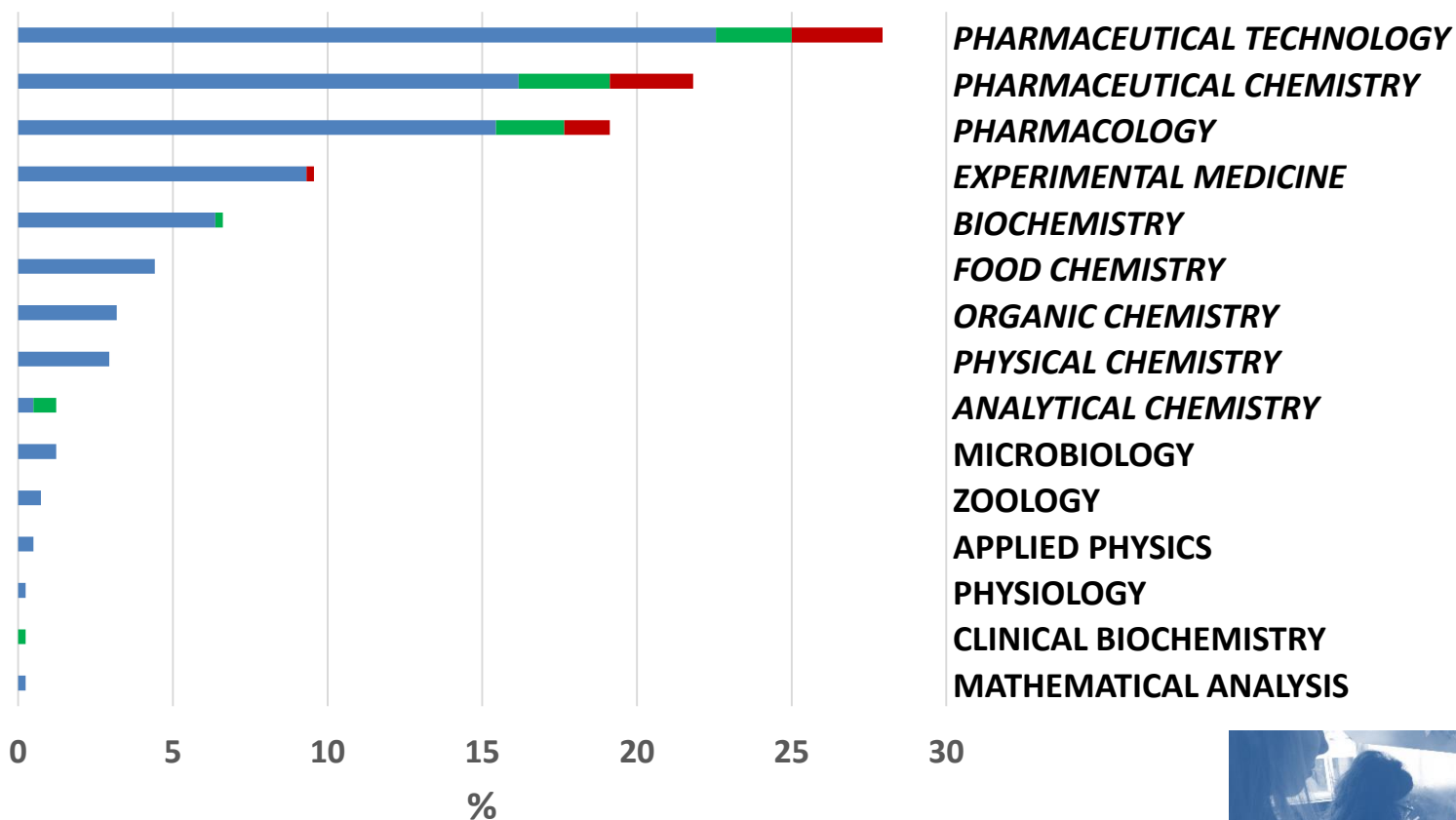
source: [www.almalaurea.it](http://www.almalaurea.it)



## Number of graduates/2

	Pharmacy	Industrial Pharmacy <i>Pharmaceutical chemistry and technology - CTF</i>	Total research internship
<i>Year</i>	<i>Research internship</i>		
<b>2013</b>	<b>20 (23%)</b>	<b>54</b>	<b>74</b>
<b>2014</b>	<b>26 (25%)</b>	<b>50</b>	<b>76</b>
<b>2015</b>	<b>34 (29%)</b>	<b>60</b>	<b>94</b>
<b>2016</b>	<b>26 (19%)</b>	<b>72</b>	<b>98</b>
<b>2017</b>	<b>27 (20%)</b>	<b>39</b>	<b>66</b>
<b>Total 5 years</b>	<b>132 (23%)</b>	<b>275</b>	<b>408</b>

# RESEARCH INTERNSHIP: representation of academic disciplines



**342 STUDENTS/5 YEARS (83.8%) inside department**

**36 STUDENTS/5 YEARS (8.8%) outside department**

**30 STUDENTS/5 YEARS (7.4%) abroad**

*Research internship*

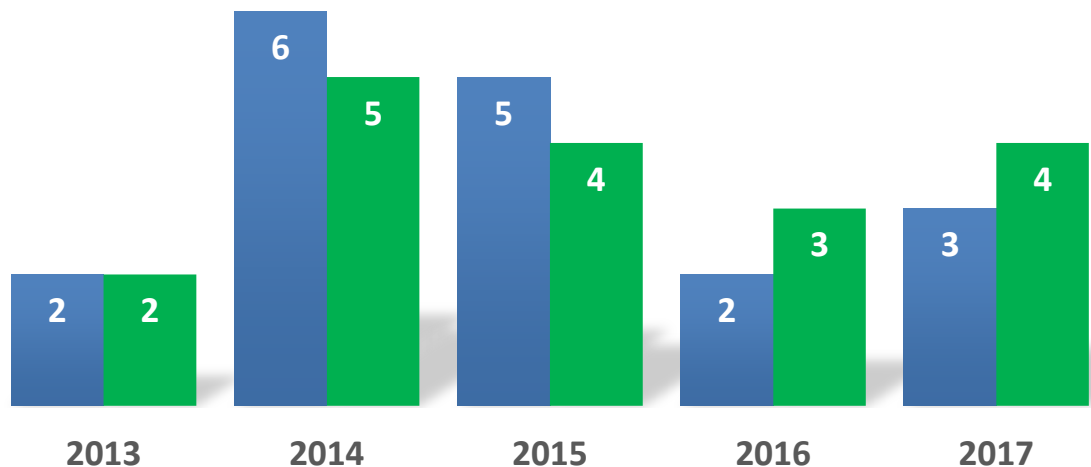


# EXTERNAL RESEARCH INTERNSHIP

***36 STUDENTS/5 YEARS (8.8%)***

**Public Institution (Hospital Corporation: Hospital Pharmacy)**

**Private Company (i.e. pharma companies)**





# INTERNATIONAL RESEARCH INTERNSHIP

## EU

- **ERASMUS+ and SMT program**
- **ULLA**

Uppsala University - Faculty of Pharmacy (Sweden)

University College London - School of Pharmacy (United Kingdom)

Leiden Academic Center for Drug Research (The Netherlands)

Vrije Universiteit Amsterdam (The Netherlands)

University of Copenhagen - Drug Research Academy (Denmark)

Université Paris-Sud - Faculty of Pharmacy (France)

University of Parma - Department of Food and Drug (Italy)

KU Leuven - Faculty of Pharmaceutical Sciences (Belgium)

University of Helsinki - Faculty of Pharmacy (Finland)

## Extra EU

- **OVERWORLD program**  
i.e. Malaysia, Australia

**+1 point to final mark (bonus)**

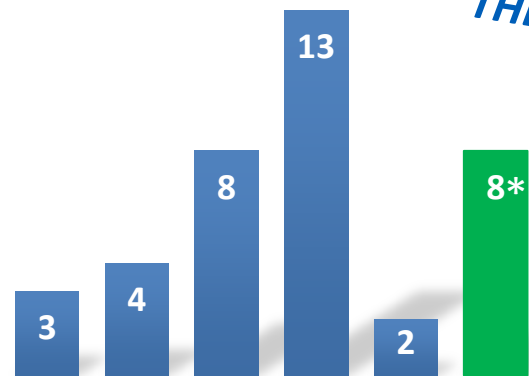


# INTERNATIONAL RESEARCH INTERNSHIP

30 STUDENTS/5 YEARS (7.4%)

BELGIUM 3  
DENMARK 5\*  
FRANCE 4  
GERMANY 3  
NORWAY 1  
SPAIN 2  
SWITZERLAND 2  
THE NETHERLANDS 3  
UK 6

Number of students



2013 2014 2015 2016 2017 2018

\*non-definitive data

\* 1 grant from ULLA cosortium



USA 1

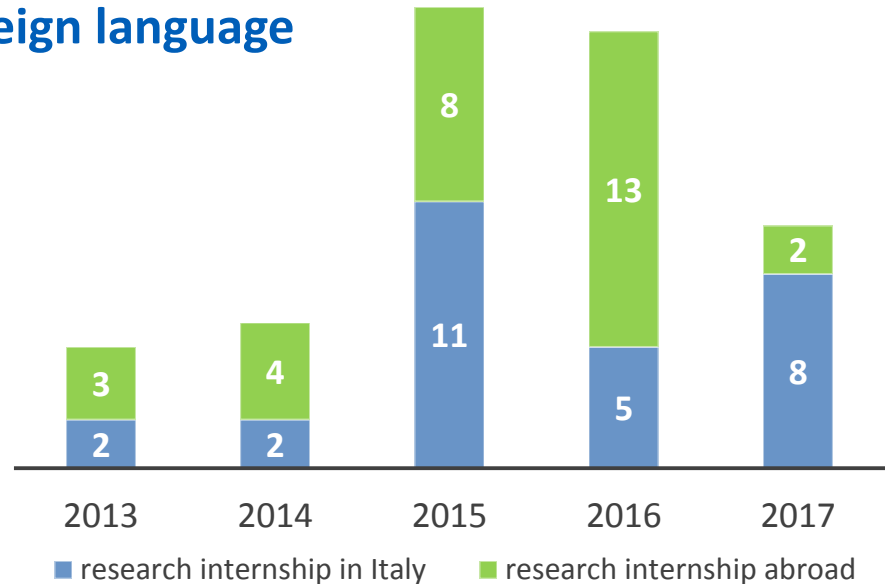
International research internship

DI PARMA



- Thesis manuscript written in a foreign language

58 students/5 years (14.2%)  
english, except for 1 in french



- Co-author of scientific paper

examples

“Microemulsion containing triamcinolone acetonide for buccal administration”  
C. Padula, I. Telò, [A. Di Ianni](#), S. Pescina, S. Nicoli, P. Santi, Eur J Pharm Sci, 2018; 115:233-239.

“Mydriatics release from solid and semi-solid ophthalmic formulations using different in vitro methods”  
S. Pescina, C. Macaluso, [G.A. Gioia](#), C. Padula, P. Santi, S. Nicoli Drug Dev Ind Pharm 2017; 43(9): 1472-1479.

- Patents

10 students/5 years (2.5%)

# CONCLUSIONS

*...what are the unmet needs?*

- *External research internship*
- *International research internship*
- *Language of the manuscript*



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