### KØBENHAVNS UNIVERSITET UNIVERSITY OF COPENHAGEN



## JEREMI JAN WIACKOWSKI

cpr. 191201-7423

har den 9. oktober 2025 has on 9 October 2025

opnået been awarded the degree of

kandidatgraden i Master of Science in

medicinalkemi Medicinal Chemistry

og titlen and the title

cand.scient.

Bente Merete Stallknecht Dekan/Dean

Bath M. Stalle

Tina Lewis Uddannelseschef/Director of Studies

DET SUNDHEDSVIDENSKABELIGE FAKULTET FACULTY OF HEALTH AND MEDICAL SCIENCES

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### KØBENHAVNS UNIVERSITET DET SUNDHEDSVIDENSKABELIGE FAKULTET

Jeremi Jan Wiackowski Cpr.: 191201-7423

har gennemført kandidatuddannelsen i medicinalkemi 9. oktober 2025



## Oversigt over prøver og bedømmelser side 1 af 1

Følgende resultater er opnået	Resultat 7-trinsskala	Resultat ECTS-skala	ECTS point
Kurser			
Course in Medicinal and Biostructural Chemistry	Bestået		2,5
Medicinal and Biostructural Chemistry	12	A	5,0
Introduction to Physical Organic Chemistry	7	C	7,5
Reactions and Synthesis in Medicinal Chemistry	10	В	15,0
Course in Biopharmaceuticals: Design and Modification of Biomacromolecules	Bestået		2,5
Biopharmaceuticals: Design and Modification of Biomacromolecules	10	В	5,0
Structure-based Drug Research	7	C	7,5
Project Outside the Course Scope	10	В	15,0
Speciale			
Synthesis of novel non-covalent Keap1 inhibitors.  Investigation of a new idea (1zA) and macrocycles	10	В	60,0

### Adgangsgrundlaget til kandidatuddannelsen

Udenlandsk bachelor, Radboud Universiteit Nijmegen, Holland

20. oktober 2025

Tina Lewis Uddannelseschef

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## Kompetenceprofil for uddannelsen

Kandidater med en kandidatgrad (cand.scient.) i medicinalkemi har gennemført en forskningsbaseret uddannelse understøttet af områderne medicinalkemi, strukturel kemi, avanceret organisk kemi og peptid- og proteinkemi og dermed opnået kompetencer på det kemiske område inden for de væsentligste fag med relevans for udviklingen af lægemidler. Disse kvalifikationer kan anvendes i andre sammenhænge i den farmaceutiske, biofarmaceutiske og bioteknologiske industri, bl.a. i forbindelse med design, produktion og udvikling af mulige nye lægemidler

#### Viden:

Kandidater i medicinalkemi har tilegnet sig viden om:

- Det rationelle grundlag for design, syntese og udvikling af lægemidler,
- Nye og effektive syntesemetoder til inkorporering eller omdannelse af de vigtigste funktionelle grupper,
- Forholdet mellem molekylstruktur og biologisk aktivitet på molekyleniveau, herunder omfattende viden om betydningen af steriske, stereokemiske, konformationelle og elektrostatiske faktorer,
- Strukturelle kemiske metoder der kan anvendes i den rationelle sammensætning af lægemidler
- Faststoffase-syntesemetoder der anvendes til dannelsen af peptider og peptidderivater, herunder peptidmimetik,
- Betydningen af konformationelle, steriske og elektroniske faktorer med hensyn til regio- og stereoselektive synteser af lægemiddelkandidater,
- Fysisk-kemiske parametre der er væsentlige for udviklingen af potentielle lægemiddelstoffer.

### Kandidater i medicinalkemi kan:

- Forklare og reflektere over de vigtigste principper, der anvendes som det rationelle grundlag for design, syntese og udvikling af nye lægemidler,
- Forklare de vigtigste kemiske, fysisk-kemiske og farmakokinetiske egenskaber ved vigtige lægemiddelgrupper,
- Forklare egenskaber og reaktivitet i heteroaromatiske forbindelser,
- Identificere videnskabelige problemer i forhold til lægemiddeldesign, syntese og -udvikling.

### Færdigheder:

Kandidater i medicinalkemi kan:

- Analysere og evaluere syntesemetoder og derudfra vælge en optimal strategi for syntesen af et molekyle der er valgt som interventionspunkt,
- Designe, planlægge og gennemføre avancerede synteser på grundlag af en kritisk gennemgang af artikler i international tidsskrifter og patentlitteratur,
- Anvende og kritisk vurdere resultater der er opnået ved moderne it-baserede metoder til struktur-aktivitetsanalyser af biologisk aktive forbindelser (potentielle lægemidler),
- Planlægge kemiske modifikationer af proteiner og estimere hvilke virkninger de får,
- Formidle forskningsbaseret viden og kommunikere på højt fagligt niveau med andre, både forskere og ikkespecialister, inden for området organisk syntese til lægemiddelforskning, computerbaseret og strukturelt lægemiddeldesign samt biolægemidler.

20. oktober 2025

Tina Lewis Uddannelseschef

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Jeremi Jan Wiackowski Cpr.: 191201-7423

har gennemført kandidatuddannelsen i medicinalkemi 9. oktober 2025

#### Kompetencer:

#### Kandidater i medicinalkemi kan:

- Planlægge, udføre og afrapportere forsknings- og udviklingsprojekter bl.a. relateret til design og produktion af nye lavmolekylære og makromolekylære lægemiddelstoffer i samarbejde med forskere fra andre fagområder,
- Planlægge og gennemføre avancerede organisk-kemiske synteser samt synteser og modifikationer af peptider, proteiner, m. der har relevans for lægemiddelindustrien og den bioteknologiske industri,
- Kontrollere komplekse arbejds- og udviklingsforhold der ikke er kendt på forhånd og dermed kræver nye løsninger,
- Fremsøge, evaluere og udarbejde oversigter over ny viden på et eller flere af følgende felter: medicinal-, computerog strukturkemi og biolægemidler,
- Bruge analytiske færdigheder, kritisk tænkning og evnen til at indsamle/finde, kombinere og præsentere information,
- Tage ansvar for egen løbende faglig udvikling og specialisering.

20. oktober 2025

Tina Lewis Uddannelseschef

# UNIVERSITY OF COPENHAGEN FACULTY OF HEALTH AND MEDICAL SCIENCES

Jeremi Jan Wiackowski Cpr.: 191201-7423

has completed the programme for Master of Science in Medicinal Chemistry 9 October 2025



## Summary of examinations and grades page 1 of 1

The following grades were awarded	Grade 7-point scale	Grade ECTS scale	ECTS credits
Courses			
Course in Medicinal and Biostructural Chemistry	Passed		2,5
Medicinal and Biostructural Chemistry	12	A	5,0
Introduction to Physical Organic Chemistry	7	C	7,5
Reactions and Synthesis in Medicinal Chemistry	10	В	15,0
Course in Biopharmaceuticals: Design and Modification of Biomacromolecules	Passed		2,5
Biopharmaceuticals: Design and Modification of Biomacromolecules	10	В	5,0
Structure-based Drug Research	7	C	7,5
Project Outside the Course Scope	10	В	15,0
Master's Thesis			
Synthesis of novel non-covalent Keap1 inhibitors.  Investigation of a new idea (1zA) and macrocycles	10	В	60,0

### Requirements for the graduate programme

International bachelor's degree, Radboud Universiteit Nijmegen, Netherlands

20 October 2025

Tina Lewis Director of Studies

# UNIVERSITY OF COPENHAGEN FACULTY OF HEALTH AND MEDICAL SCIENCES

Jeremi Jan Wiackowski Cpr.: 191201-7423

has completed the programme for Master of Science in Medicinal Chemistry 9 October 2025



## Skills profile for the programme

Graduates with an MSc in Medicinal Chemistry have completed a research-based degree programme underpinned by the subject areas of medicinal chemistry, structural chemistry, advanced organic chemistry, and peptide and protein chemistry, thereby achieving chemical competency in the core subjects relevant in drug discovery. These qualifications are applicable in other contexts in the pharmaceutical, biopharmaceutical and biotechnical industries, for example, in connection with the design, production and development of potential new drugs.

### Knowledge:

The holder of an MSc in Medicinal Chemistry has acquired knowledge about:

- The rational basis for design and development of drugs.
- New and effective methods of synthesis for incorporation or transformation of the most important functional groups.
- The relationship between molecular structure and biological activity at the molecular level, including comprehensive knowledge of the importance of steric, stereochemical, conformational and electrostatic factors.
- Structural chemical methods, that can be used in the rational design of drugs
- Solid-phase methods of synthesis used to make peptides and peptide derivatives, including peptidomimetics.
- The significance of conformational, steric and electronic factors with regard to regio- and stereoselective syntheses of drug candidates.
- Physical-chemical parameters important for the development of potential drug substances.

The holder of an MSc in Medicinal Chemistry is able to:

- Explain and reflect upon the key principles used for the rational basis of design and development of new drugs
- Explain the most important chemical, physical-chemical and pharmacokinetic properties of important groups of drugs
- Explain the properties and reactivity of heteroaromatic compounds
- Identify scientific problems in relation to the design and development of drugs.

### Skills:

The holder of an MSc in Medicinal Chemistry is able to:

- Analyze and evaluate methods of synthesis in order to choose an optimal strategy for the synthesis of a target molecule
- Design, plan and conduct advanced syntheses on the basis of a critical review of articles in international journals and patent literature
- Use and critically evaluate results achieved by modern computer-based methods for structural-activity analyses of biologically active compounds (potential drugs)
- Plan chemical modifications of proteins and estimate the effects.
- Convey research-based knowledge and communicate at a high academic level with peers and non-specialists in the field of organic synthesis for drug research, computational and structural drug design, and biopharmaceuticals

20 October 2025

Tina Lewis
Director of Studies

# UNIVERSITY OF COPENHAGEN FACULTY OF HEALTH AND MEDICAL SCIENCES

Jeremi Jan Wiackowski Cpr.: 191201-7423

has completed the programme for Master of Science in Medicinal Chemistry 9 October 2025

### Competences:

The holder of an MSc in Medicinal Chemistry is able to:

- Plan, carry out and report on research and development projects, for example, related to the design and production of new small molecule and macromolecular drugs in cooperation with scientists from other disciplines.
- Plan and conduct advanced organic chemical syntheses as well as syntheses and modifications of peptides, proteins etc. relevant to the pharmaceutical and biotechnological industries.
- Control complex work and development situations, that are not known in advance and therefore require new solutions.
- Retrieve, evaluate and summarize new knowledge in one or more of the following fields: medicinal, computational, structural chemistry and biopharmaceuticals.
- Use analytical skills, critical thinking and the ability to collect/find, compound and present information.
- Take responsibility for continued professional self-development and specialization.

20 October 2025

Tina Lewis Director of Studies



## Diploma Supplement

The purpose of the Diploma Supplement is to provide sufficient independent data to improve the international 'transparency' and fair academic and professional recognition of qualifications (diplomas, degrees, certificates etc.). It is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the individual named on the original qualification to which this supplement is appended. It is free from any value judgements, equivalence statements or suggestions about recognition. This Diploma Supplement model was developed by the European Commission, Council of Europe and UNESCO.

# 1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1. Family name(s): Wiackowski

1.2. Given name(s): Jeremi Jan

**1.3. Date of birth:** 19 December 2001

1.4. Danish civil registration number: 191201-7423

# 2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1. Name of qualification and title conferred (in Danish): cand.scient. (candidata/us scientarum) i medicinalkemi, candidatus scientiarum

Name of qualification and title conferred (in English): Master of Science (MSc) in Medicinal Chemistry, candidatus scientiarum

- **2.2. Main fields of study:** Natural and pharmaceutical sciences
- 2.3. Name and status of awarding institution: Name:
  Københavns Universitet/University of
  Copenhagen
  Status The University of Copenhagen is a state

Status: The University of Copenhagen is a staterecognised higher education institution, regulated according to the Ministry of Higher Education and Science. The University of Copenhagen is a university that has undergone external quality assurance by the Danish Accreditation Institution (in Danish: Danmarks Akkrediteringsinstitution), that is certified to follow the European Standards and Guidelines through registration in EQAR and membership in ENQA, in Denmark.

- 2.4. Name and status of institution administering the studies (See 2.3.): Same as above
- 2.5. Language(s) of instruction/examination: Instruction and examinations primarily in English; textbooks primarily in English

# 3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

- **3.1. Level of qualification**: Master's degree at NQF/EQF Level 7 referring to Second Cycle in the Bologna QF.
- **3.2. Official length of programme:** 2 years = 120 ECTS credit points
- **3.3.** Access requirements: A completed Bachelor's degree in Medicinal Chemistry or another relevant Bachelor's degree.

## 4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

- 4.1. Mode of study: Full time study
- **4.2. Programme learning outcomes:** Please refer to the enclosed skills profile.
- **4.3. Programme details and individual** grades/marks/credits obtained: Please refer to the enclosed grade transcript.
- **4.4.** Grading scheme and if applicable grade distribution information: Please refer to the enclosed explanation of the Danish education system and the grading scale.
- **4.5 Overall classification of the qualification:** Not applicable for Danish qualifications.

# 5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

- **5.1.** Access to further study: A completed Master of Science in Medicinal Chemistry gives access to further study within the field of Health and Medical Science or Natural Science at NQF/EQF level 8 referring to Third Cycle in the Bologna QF.
- 5.2. Professional status: The holder of an MSc in medicinal chemistry is able to: plan, carry out and report on research and development projects, for example, related to the design and production of new small molecule and macromolecular drugs in cooperation with scientists from other disciplines plan and conduct advanced organic chemical syntheses and syntheses and modifications of peptides, proteins etc. relevant to the pharmaceutical and biotechnological industries.

General information on higher education in Denmark can be obtained from the following two homepages:

<u>Ufm.dk</u> Uddannelses- og Forskningsministeriet – The Ministry of Higher Education and Science

<u>Enic-naric.net</u> The National Academic Recognition Information Centres and the European National Information Centre on Academic Recognition and Mobility (ENIC/NARIC)

## 7. CERTIFICATION OF THE SUPPLEMENT

1. L.

7.1. Date: 20 October 2025

6. ADDITIONAL INFORMATION

6.1. Additional information: Founded in 1479 by the Danish King Christian I, the University of Copenhagen is Denmark's oldest and largest institution of research and higher education. More than 37,000 students are enrolled in undergraduate and graduate programmes, plus an additional 2,500 PhD students. Staff members number 9,000. The University is divided into six faculties: Theology, Law, Social Sciences, Health and Medical Sciences, Humanities and Science; all situated in the capital of Denmark.

### 6.2. Further information:

Faculty of Health and Medical Sciences Blegdamsvej 3B DK - 2200 København N. Website: healthsciences.ku.dk

Phone +4535327900 E-mail: email@sund.ku.dk 7.2. Tina Lewis

7.3. Director of Studies



## 8. INFORMATION ON THE DANISH HIGHER EDUCATION SYSTEM

#### **June 2016**

Public higher education institutions in Denmark are regulated by national legislation concerning degree structures, teacher qualifications and examinations. Accreditation in higher education is undergoing transition from programme-based accreditation to institutional accreditation. Programmes and institutions are accredited by national, independent accreditation agencies and the Accreditation Council.

#### **Higher education institutions**

Higher education is offered by five types of higher education institutions:

- Business academies (Erhvervsakademi) offering professionally oriented short cycle and first cycle degree programmes.
- University Colleges (Professionshøjskole) offering professionally oriented first cycle degree programmes.
- 3. Maritime Education and Training Institutions offering professionally oriented short cycle and first cycle degree programmes.
- 4. General and specialised research universities (Universitet) offering first, second and third cycle degree programmes in academic disciplines.
- University level institutions offering first, second and third cycle degree programmes in subject fields such as architecture, design, music, and fine and performing arts.

Most higher education institutions are regulated by the Ministry of Higher Education and Science (type 1-5).

The Ministry of Culture regulates a number of higher education institutions offering programmes within fine and performing arts (type 5).

#### Qualification framework

The qualification levels form the basis for the Danish National Qualifications Framework for Higher Education, which is certified in accordance with the overarching Bologna Framework according to the principles adopted by the European Ministers of Higher Education. Danish higher education qualifications at levels 5-8 of the Danish Qualifications Frame-work for Lifelong Learning (NQF) correspond with levels 5-8 of the European Qualifications Framework (EQF).

#### Admission and progression

General access to higher education in Denmark requires an Upper Secondary School Leaving Certificate or comparable qualifications. Admission to some particular programmes requires entrance examination or submission of a portfolio of artistic work. Holders of an Academy Profession degree can obtain a Professional Bachelor's degree within the same field of study through a top-up programme. Completion of a first cycle degree qualifies students for admission to the second cycle.

### **Ordinary Higher Education degrees**

The Academy Profession degree is awarded after 90-150 ECTS and includes a period of work placement of at least 15 ECTS. The programmes are development-based and combine theoretical studies with a practical approach. Programmes are, among others, offered within Marketing Management, Computer Science and Chemical and Biotechnical Science. The Danish title is field of study followed by the abbreviation AK and the English title is AP Graduate in [field of study].

#### Overview of degrees in the Danish Higher Education System

Danish higher education institutions use the European Credit Transfer System (ECTS) for measuring study activities. 60 ECTS correspond to one year of full-time study.

Danish qualifications levels	Ordinary higher education degrees	Adult/Continuing higher education degrees	Qualifications Framework for the European Higher Education Area – Bologna Framework	European/National Qualifications Framework for Lifelong Learning – EQF/NQF
Academy Profession level	Academy Profession degree (90-150 ECTS)	Academy Profession degree (60 ECTS)	Short cycle	Level 5
Bachelor's level	Professional Bachelor's degree (180-240 ECTS)*	Diploma degree (60 ECTS)	First cycle	Level 6
	Bachelor's degree (within fine arts) (180 ECTS)			
	Bachelor's degree (180 ECTS)			
Master's level	Master's degree (within fine arts) (120-180 ECTS)	Master degree (60-90 ECTS)	Second cycle	Level 7
	Master's degree (120 ECTS)**			
PhD level	PhD degree (180 ECTS)		Third cycle	Level 8

<sup>\*</sup> Can be obtained through a full regular bachelor's programme (180-240 ECTS) or a top up bachelor's programme (90 ECTS) following an Academy Profession degree. A few Professional Bachelor programmes are 270 ECTS.

<sup>\*\*</sup> A few Master's programmes are up to 180 ECTS.

The Professional Bachelor's degree is awarded after 180-270 ECTS and includes a period of work placement of at least 30 ECTS. The programmes are applied programmes. They are development-based and combine theoretical studies with a practical approach. Examples of professional bachelor's degree holders are nurses, primary and lower secondary school teachers and certain types of engineers. The Danish title is Professionsbachelor i [field of study] and the English title is Bachelor of [field of study].

*The Bachelor's degree* from a university is awarded after 180 ECTS. The programmes are research-based and are offered in all scientific fields. The Danish title is Bachelor (BA) i [field of study] or Bachelor (BSc) i [field of study] and the English title is Bachelor of Arts (BA) in [field of study] or Bachelor (BSc) of Science in [field of study].

The Bachelor's degree (within fine arts) is awarded after 180 ECTS. The programmes are based on research and artistic research. Programmes are offered within the fine arts. The Danish title is Bachelor (BA) i [field of study], Bachelor i musik (BMus) [field of study] or Bachelor i billedkunst (BFA) [field of study] and the English title is Bachelor of Arts (BA) in [field of study], Bachelor of Music (BMus) [field of study] or Bachelor of Fine Arts (BFA) in [field of study]. A higher education degree within theatre or filmmaking is awarded after 3-4 years of study (180-240 ECTS).

The Master's degree is awarded after 120 ECTS. The programmes are research-based and are offered in all scientific fields. The Danish title is abbreviated to Cand.[latin abbreviation of academic area] i [field of study]. The English title is Master of Arts (MA) in [field of study] or Master of Science (MSc) in [field of study].

*The Master's degree (within fine arts)* is awarded after 120-180 ECTS. The programmes are based on research and artistic research. The Danish title is abbreviated to

Cand.[latin abbreviation of academic area] [field of study]. The English title is Master of Arts (MA) in [field of study], Master of Music (MMus) [field of study] or Master of Fine Arts (MFA) in [field of study]. Music Academies offer a specialist degree of 2 to 4 years following the master's degree.

*The PhD degree* is awarded after 180 ECTS. PhD programmes are offered by the universities and some university level institutions offering degrees in the artistic and cultural field.

Detailed descriptions of degree levels can be found in the Danish Qualifications Framework at www.nqf.dk. Please consult the relevant Diploma Supplement for information about the learning outcome of any specific degree.

#### Adult and continuing higher education

- The programmes normally consist of 2 years of part-time study, equivalent to 1 year of full-time study (60 ECTS credits). Certain master programmes require 1½ years of full-time study (90 ECTS credits). Admission requirements are a relevant educational qualification and at least 2 years of relevant work experience.
- Adult and continuing education is available at levels corresponding to qualifications of the ordinary higher education system.
- The Further Adult Education degree (videregående voksenuddannelse/akademiuddannelse) is awarded after studies at short cycle level and gives access to diploma programmes.
- The Diploma degree (diplomuddannelse) is awarded after studies at first cycle level and gives access to master programmes.
- The Master degree (masteruddannelse) is awarded after studies at second cycle level.

#### The 7-point grading scale

The grading system used in all state-regulated education programmes as of September 2007 is the 7-point grading scale. Apart from the 7-point grading scale, pass/fail assessment may also be used. 02 is the minimum grade for passing an exam.

Description of grades: 12: For an excellent performance displaying a high level of command of all aspects of the relevant material, with no or only a few minor weaknesses; 10: For a very good performance displaying a high level of command of most aspects of the relevant material, with only minor weaknesses; 7: For a good performance displaying good command of the relevant material but also some weaknesses; 4: For a fair performance displaying some command of the relevant material but also some major weaknesses; 02 For a performance meeting only the minimum requirements for acceptance; 00: For a performance which does not meet the minimum requirements for acceptance; -3 For: a performance which is unacceptable in all respects.