

Besluit **Besluit strekkende tot het verlenen van accreditatie aan de opleiding wo-onderzoeksmaster Molecular Mechanisms of Disease (research) van de Radboud Universiteit Nijmegen**

Gegevens

datum	Naam instelling	: Radboud Universiteit Nijmegen
31 augustus 2017	Naam opleiding	: wo-onderzoeksmaster Molecular Mechanisms of Disease (research) (120 EC)
onderwerp	Datum aanvraag	: 10 augustus 2016
Besluit	Variant opleiding	: voltijd
accreditatie wo-onderzoeksmaster	Locatie opleiding	: Nijmegen
Molecular Mechanisms of Disease (research) van de Radboud Universiteit Nijmegen (005035)	Datum goedkeuren panel	: 5 januari 2016
uw kenmerk	Datum locatiebezoek	: 25 en 26 April 2016
mso.rg/16U.019529	Datum visitatierapport	: 8 juli 2016
ons kenmerk	Instellingstoets kwaliteitszorg	: ja, positief besluit van 21 november 2011

Aanvullende informatie

NVAO/20172143/LL
bijlagen
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De NVAO heeft bij brief van 17 november 2016 de instelling aanvullende informatie gevraagd over de onderbouwing van het oordeel excellent op standaard 1, met name in vergelijking met het oordeel in de voorgaande beoordeling van de opleiding. Bij brief van 11 juli 2017 heeft de NVAO de aanvullende informatie ontvangen. De NVAO heeft de aanvullende informatie in haar oordeelsvorming betrokken.

Beoordelingskader

Beoordelingskader voor de beperkte opleidingsbeoordeling van de NVAO (Stcrt. 2014, nr 36791).

Richtlijn beoordeling onderzoeksmasters vanaf 1 september 2015 van 23 april 2015.

Bevindingen

De NVAO stelt vast dat in het visitatierapport en de aanvullende informatie deugdelijk en kenbaar is gemotiveerd op welke gronden het panel de kwaliteit van de opleiding goed heeft bevonden.

Desgevraagd laat het panel weten dat het zijn oordeel op standaard 1 Beoogde eindkwalificaties moeilijk kan vergelijken met het in zijn ogen op dit punt zeer beknopte eerdere oordeel.

Samenvatting bevindingen en overwegingen van het panel.

Standard 1

The goal of the MMD programme is 'to educate excellent future scientists with a broad fundamental knowledge in Molecular Life Sciences and the skills to translate this knowledge to medical experimental research and clinical applications.' The MMD programme distinguishes itself from other programmes in the field because of its strong focus on academic research training, its broad profile and its 'translational' approach. In the panel's view, the broad profile of the programme is a strong feature. It enables the programme to make optimal use of the available expertise at RIMLS. The panel is very impressed with the 'translational approach'. This approach is well thought out and even has a clinical edge to it; the programme actively brings students into contact with 'the patient behind a molecular challenge'. In the panel's view, the 'translational approach' is a unique feature.

The panel studied the final qualifications and concluded that they are of the right level and depth. They clearly display the research orientation of the programme and well-reflect the broad focus and translational approach of the programme. In the panel's view, the goals of the programme with regard to research training and preparation for a future scientific career are highly ambitious and clearly demonstrable. In its view, the focus and intended learning outcomes of the MMD programme are an international model. Therefore, the panel assesses Standard 1 as 'excellent'.

Standard 2

The MMD research master's programme is a two-year programme. Each year includes a number of mandatory courses, several electives and a research-training period. The research-training period in year one takes place under the direct supervision of an RIMLS senior researcher and concludes with an internship report. The research-training period in year two is the apotheosis of the programme. It is often organised at a foreign institute of excellence and concludes with a master's thesis in the form of a scientific article. During the second research-training period, students can choose to do an internship lasting either 6 (39 EC) or 7 (45 EC) months. A 39 EC internship needs to be combined with a 'Literature thesis' of 6 EC.

The panel concluded that the MMD programme enables students to achieve the ambitious final qualifications. The level of the courses is consistent with what can be expected of a research master's programme, and the research orientation of the programme is evident. The curriculum pays ample attention to academic research training, ethos in science, the development of research skills in the lab, and the latest research developments in the scientific field (through the masterclasses). Furthermore, students are actively involved in many research activities within and outside the RIMLS scientific community. In the panel's view, this community is of high quality and includes many very good – and some outstanding – researchers. MMD students convinced the panel that they are taken seriously within the RIMLS research community and are treated as full junior members.

The panel is impressed with the intensity and flexibility of the mentor programme in place. At the beginning of the first year, each student is assigned a personal mentor, who is a RIMLS senior scientist. The mentor provides support, coaching and guidance. Students also receive support with their professional career development, e.g. upgrading of their CV and help with developing research proposals for PhD positions. The mentor and the student meet at least seven times during the two-year period. In addition, the mentors have an

Pagina 3 van 7 'open-door' policy and are accessible whenever needed. The panel established that the 'open-door' policy really works, partly due to the mentor programme and the fact the number of students that enrol is limited. The admission policy of the programme is thorough and strict, as it should be for a research master's programme. Its success rates are high. The programme takes quality assurance very seriously.

The panel identified a number of recommendations for further improvement. The programme should revise its three educational themes, make the 'Literature thesis' compulsory for all students, and improve the visibility of the programme for Dutch students from other universities than Radboud University.

In the panel's view, the MMD programme is a very attractive programme for students who want to excel and aspire to a scientific career in Molecular Life Sciences. The teaching-learning environment has many strong and some unique features, including its translational approach, its link to the clinic, its high-quality research environment, its strong research orientation, its intensive mentor programme, its favourable staff-student ratio, and its strict admission policy.

In the panel's opinion, Standard 2 easily meets the criteria for the qualification 'good'.

Standard 3

The MMD programme follows the assessment policy of the Faculty of Medical Sciences. The formal assessment rules of MMD are described in the Education and Examination Regulations, and the relation between the intended learning outcomes, course objectives and assessment is set out in an examination programme. The panel concluded that the assessment rules, regulations and policy of the MMD programme are described clearly and are followed by the MMD staff. It studied the examination plan and assessments from a number of courses and established that the forms of assessment in the programme are varied and match the learning objectives of the courses. The assessments are of the right level and cover the course content. The relation between the intended learning outcomes, the course objectives and the assessment is well thought out. Students within the MMD programme have a considerable amount of freedom in the composition of their individual study programme. Therefore, they need to develop a study plan for the whole programme and work plans for their internship periods. The panel examined a couple of study and work plans. It is convinced that they are adequate tools in assuring that all students follow a programme of an adequate level and are sufficiently tested on all intended learning outcomes.

The internship periods are the most important parts of the MMD programme. In the panel's view, the research-training periods provide a solid preparation for a future career in academia. The internship report and master's thesis are adequate tools to assess the final attainment levels of MMD graduates. The panel studied reports and theses from 15 MMD graduates. It concluded that a number of aspects of the assessment and grading of the reports and theses need to be improved. First, the programme has a tendency to give high scores; in many cases, the panel would have given a score at least 0.5 point lower. The Board of Examiners should look into this. Second, the assessment form could be structured in a more transparent way. The panel recommends categorizing the assessment criteria; each category should be graded and weighted. Third, the panel noted that not all reports and theses it studied were assessed with the same amount of accuracy. It urges the Board of Examiners to develop a formal rule explaining to assessors what they should do if

Pagina 4 van 7 mandatory elements are missing in a report/thesis. It also advises the Board to make sure that all assessment forms include written feedback.

The panel studied the minutes from the Board of Examiners and concluded that this Board takes its responsibilities very seriously. Problems are detected early, investigated thoroughly and solved in a satisfactory manner. The panel is confident that the Board of Examiners is in control and will implement its recommendations in an adequate manner. Therefore, it assesses Standard 3 as 'satisfactory'.

Standard 4

The panel studied the internship reports, master's theses and literature theses (where available) of 15 graduates from the 2012-2014 and 2013-2015 cohorts. In its view, they demonstrate that MMD graduates are capable of performing scientific research on a high level. It is convinced that the graduates achieve the ambitious intended learning outcomes of the programme.

The high level of MMD graduates is also demonstrated by the fact that many of them have published their research in peer-reviewed journals. Their employment record is also impressive: 82% of MMD graduates find a PhD position either shortly before or directly after graduation. In the panel's view, the achieved learning outcomes of the programme clearly surpass the generic quality standards.

The panel assesses Standard 4 as 'good'.

The panel assesses the programme in general as 'good'.

Pagina 5 van 7 **Besluit**

Ingevolge het bepaalde in artikel 5a.10, derde lid, van de WHW heeft de NVAO het college van bestuur van de Radboud Universiteit Nijmegen te Nijmegen in de gelegenheid gesteld zijn zienswijze op het voornemen tot besluit van 14 augustus 2017 naar voren te brengen. Bij e-mail van 16 augustus 2017 heeft de instelling van die gelegenheid gebruik gemaakt. Dit heeft geleid tot aanpassing in bijlage één.

De NVAO besluit accreditatie te verlenen aan de wo-onderzoeksmaster Molecular Mechanisms of Disease (research) (120 EC; variant: voltijd; locatie: Nijmegen) van de Radboud Universiteit Nijmegen te Nijmegen. De NVAO beoordeelt de kwaliteit van de opleiding als goed.

Dit besluit treedt in werking op 31 augustus 2017 en is van kracht tot en met 30 augustus 2023.

Den Haag, 31 augustus 2017

De NVAO

Voor deze:

A handwritten signature in black ink, consisting of a large, stylized 'P' followed by 'Z' and 'B', with a long horizontal stroke extending to the right.

Dr. A.H. Flierman
(voorzitter)

Paul Zevenbergen
Bestuurder

Tegen dit besluit kan op grond van het bepaalde in de Algemene wet bestuursrecht door een belanghebbende bezwaar worden gemaakt bij de NVAO. De termijn voor het indienen van bezwaar bedraagt zes weken.

Onderwerp	Standaard	Beoordeling door het panel
1. Beoogde eindkwalificaties	De beoogde eindkwalificaties van de opleiding zijn wat betreft inhoud, niveau en oriëntatie geconcretiseerd en voldoen aan internationale eisen.	Excellent
2. Onderwijsleeromgeving	Het programma, het personeel en de opleidingsspecifieke voorzieningen maken het voor de instromende studenten mogelijk de beoogde eindkwalificaties te realiseren.	Goed
3. Toetsing	De opleiding beschikt over een adequaat systeem van toetsing.	Voldoende
4. Gerealiseerde eindkwalificaties	De opleiding toont aan dat de beoogde eindkwalificaties worden gerealiseerd.	Goed
Eindoordeel		Goed

De standaarden krijgen het oordeel onvoldoende, voldoende, goed of excellent. Het eindoordeel over de opleiding als geheel wordt op dezelfde schaal gegeven.

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- Prof. Frans Ramaekers, (voorzitter) Professor of Molecular Cell Biology and Scientific Director of GROW (School for Oncology and Developmental Biology) at Maastricht University Medical Center;
- Prof. Paul Coffey, (lid) Professor of Cell Biology at the Center for Molecular Medicine of the University Medical Center Utrecht;
- Prof. Caroline Kisker, (lid) Professor at the Rudolf Virchow Center for Experimental Biomedicine of the University of Würzburg;
- Dr. Dik van Gent, (lid) Programme Director of the master's programme Molecular Medicine at the Erasmus Medical Center;
- Anouk Baars, MSc, (student-lid) former student of the research master's programme Medical and Pharmaceutical Drug Innovation at the University of Groningen.

Het panel werd ondersteund door Adrienne Wieldraaijer-Huijzer, MA, secretaris (gecertificeerd).