

Terms of Reference

Oncode Investigator assessment and Selection procedure

1. Oncode Institute

1.1 Introduction

The Netherlands is a front runner in oncology research. Nevertheless, only a few Dutch research findings have served as a basis for new cancer diagnostics and treatments. Dutch research could and should be helping more patients. Oncode Institute was founded on the belief that a change to the oncological research ecosystem would be required to propel the Netherlands to a leading position in the translation of basic cancer research findings into results for patients.

Oncode institute (hereafter Oncode) was initiated in 2017 by an alliance of funders to bring innovations in basic cancer research to patients more efficiently and faster. The basic outline of this virtual institute is centered on three interconnected pillars: 1) provide academic freedom to some of the best and diverse cancer research groups in the country by providing substantial, unrestricted 'base' funding, and support (including financial) to enable the set-up of new technologies and infrastructures. 2) promote extensive interactions between these groups, with patients, clinicians and industry, to further stimulate innovations; 3) integrate all activities of the institute with professional and pro-active valorization efforts, to more quickly recognize the potential of breakthroughs in the labs for public benefit, and to enable their efficient translation to a form that will create that benefit.

More information can be found [here](#).

1.2 The Oncode Investigators

The Oncode research team comprises 61 Oncode Investigators (OIs) from 12 research institutions that bring expertise in the field of fundamental oncological research, united through a shared mission and strategy. After the initial recruitment of 43 research groups, 19 more were recruited in two open calls (one OI retired). The OIs have been selected on the basis of excellence, collaborative spirit, and complementarity to the Oncode research community.

Oncode provides its investigators with an annual base fund of €250k (€150k for Junior Investigators). The Oncode base funds are unrestricted and meant to promote innovative basic and pre-clinical research lines of high quality (high-risk/high-gain). In

return, Oncode has the right to valorize all research of a participating OI lab. In addition, OIs have access to Oncode's supplemental programmes and targeted funding. These are aimed at enhancing the research capacity and effectiveness of the Oncode research community by promoting collaboration, setting up shared infrastructures, valorization (e.g. through IP funds, clinical proof of concept funds) and internationalization. OIs retain full academic freedom to pursue their own scientific interest and are not required to restrict their research exclusively to the field of oncology.

2. Outline of the assessment process

2.1 Who will be assessed

To maintain the highest standard of research, Oncode will evaluate its OIs every 5 years. The current review is part of a selection process to determine which OIs will be invited to join the next 5 years of Oncode, starting September 2022. In total 45 OIs will be assessed, 39 senior OIs, and the 6 junior OIs that have been appointed in 2017. The assessment of the juniors includes the condition that their performance should justify their promotion to Senior OI.

The group of junior OIs appointed in 2019 will be assessed in a similar process to the current one but starting in 2023.

2.2 What will be assessed

OIs will be assessed on two criteria:

1. **Scientific excellence**
2. **Impact on Oncode**

Impact on Oncode's community and activities include: a) sharing/collaboration; b) valorisation; c) participation in Oncode (boards/committees).

The assessment will be based on:

- 1: **the Oncode Investigator assessment dossier including:**
 - 5 years progress report,
 - Narrative CV,
 - Appendix to CV.
- 2: **Overview of Oncode Community Activities**, pre-filled by Oncode staff and checked for completeness by the OI.

2.3 Assessment procedure

2.3.1 Scientific excellence

The *scientific excellence* of all OIs, including RMC members and scientific director, will be scored by a group of independent international reviewers. Senior OIs will be reviewed by three reviewers, junior OIs by five reviewers. Based on the scores and comments from the external reviewers, the RMC will give a final Science score and corresponding argumentation. The process will be monitored by at least one independent external party present during the discussions. Scoring criteria are detailed below.

2.3.2 Impact on Oncode

This section consists of three elements: collaboration, participation and valorization. Collaboration and participation will be assessed by the RMC, the valorization score will be provided by the valorization team (VT) complemented by 2 external reviewers. Both the RMC and VT will make their assessment based on 1) the assessment dossier and 2) the Oncode activities overview, the scoring criteria are detailed below.

The RMC will integrate all scores and review reports for valorization, participation and collaboration to distil an overall score per OI for 'Impact on Oncode'. The process will be monitored by at least one independent external party present at the discussions.

2.3.3 Outcome

The outcome of the assessment will be evaluated by the International Advisory Board (IAB), followed by evaluation by the Independent Review Committee (IRC). Based on the assessment outcome and the evaluations by the IAB and IRC, the MB will make the final decision for continuation of OIs for phase 2.

2.4 Assessment of the RMC members

The RMC members, except the scientific director, will be assessed by the IAB based on their full assessment dossiers, overview of activities, and review report for scientific excellence, as provided by the external reviewers. The IAB advice will be evaluated by the IRC. Oncode's Supervisory Board will decide on continuation of the scientific director into phase II based on the review reports.

2.5 Conflict of interest

The Oncode Conflict of Interest policy applies for all reviewers.

2.6 Review report and score

2.6.1 Scientific excellence

For each OI assigned to the external reviewer, we ask the reviewer to score the OI for scientific excellence, according to the scoring criteria described below, and substantiate the score for the following two categories:

1. **Past and present performance** (focus on previous 5y): To what extent has the work of the PI made transformative contributions to the field and/or are the current projects likely to be transformative upon successful completion? To what extent has (s)he been able to attract prestigious funding for his/her work? How do you rate the PI's indicators-of-excellence (papers, grants, prizes, prominent speaker invitations, panels etc)?
2. **Future promise**: To what extent do the plans of the PI show innovative research lines? To what extent do you consider the plans to be high-risk/high-gain? Is the PI likely to make transformative contributions in the next 5 years?

2.6.2 Impact on Oncode

Valorization score: the VT will review, as a team, the OIs for their valorisation activities and contribution based on data from the VT, assessment dossier and Overview of Oncode Community Activities. The VT will provide a review report including a score (excellent, good or poor) for each individual OI and a narrative substantiating the score in which the following two questions are addressed:

- 1) What is the number and quality of the output of the OI in terms of valorization?
- 2) What is the attitude of the OI towards valorization?

Parameters to include by the VT are: invention disclosure forms, patents filed, agreements entered into (associated €), spin-off companies formed, as well as softer metrics such as engagement with industry (eg. discussions with industry as part of marketing activities), clinical activities, open science and affordable health care activities. The overall assessment by the VT will be independently evaluated by two external valorization experts. The VT assessment report including the advice of those external experts will be submitted to the RMC.

Participation and Collaboration scores: the RMC will assess the OIs, excluding the RMC members and scientific director, for participation and collaboration based on the assessment dossier and Overview of Oncode Community Activities. OIs will receive separate scores including argumentation for *participation* and *collaboration*.

2.7 Scoring criteria

2.7.1 Scientific excellence

The reviewers will be asked to score the OIs according to the following criteria:

Senior PIs

Note: since PIs were selected to join OncoCode Institute based on prior excellence, we assume all of them are at least 'Good' and hence have not defined a category lower than 'middle tier'. If you feel a PI nonetheless should score lower, please indicate so in your accompanying report.

Overall: considering the past performance and future plans, is the senior PI:

1. Highest Top tier. Outstanding PI. Proven track record of (or potential for) equivalent of HHMI investigator/ERC-AdG awardee, would be worthy of getting recruited to your country's top institute. Extremely high potential for high impact innovations or break-through discoveries in the next 5 years.
2. Top tier. Excellent PI. Very strong track record, clear leader in his/her broader field (e.g. immuno-oncology, genomic instability, cancer biology, cancer genomics, etc) or someone who has a large impact on several fields with a specific technology or platform. Makes regular discoveries with high impact* (e.g. two or more in the past 5 years). Very strong recent indicators-of-excellence. High potential for high impact innovations or break-through discoveries in the next 5 years.
3. Sub-top tier. Very good PI. High quality science, competitive in his/her broader research field. Good recent indicators of excellence. Makes discoveries with high impact* occasionally (e.g. one in the past 5 years) but not frequently. Some potential for high impact innovations or break-through discoveries in the next 5 years.
4. Middle tier. Good PI. Good track record. No or a few recent good indicators-of-excellence. Solid science but no high impact* discoveries in the past 5 years. High impact innovations or break-through discoveries are not likely in the next 5 years.

Junior PIs

Overall: considering the past performance and future plans, is the junior PI:

1. Highest Top tier. Outstanding young PI. Proven track record of (or potential for) equivalent of HHMI early career / ERC-CoG awardee. Well on his/her way to become a prominent scientist impacting multiple broader research fields. Extremely high potential for high impact innovations or break-through discoveries in the next 5 years. Would be worthy of getting recruited to your country's top institute.

2. Top tier. Excellent young PI. Very strong track record, on his/her way to become a leader in his/her broader field (e.g. immuno-oncology, genomic instability, cancer biology, cancer genomics, etc etc) or someone who has a large impact on several fields with a specific technology or platform. Very strong indicators-of-excellence. High potential for high impact innovations or break-through discoveries in the next 5 years. Would have a good chance of getting a tenured position at a top institute in your country.

3. Sub-top tier. Very good young PI. High quality science, competitive in his/her broader research field. Good recent indicators of excellence. Some potential for high impact innovations or break-through discoveries in the next 5 years. Would be worthy of a tenured position at an excellent institute in your country, but may not make it at your country's top institute.

4. Middle tier. Good young PI, good track record. No or few recent good indicators-of-excellence. Solid science, middle of the pack in his/her broader research field. High impact innovations or break-through discoveries not likely in the next 5 years. Has a chance of getting tenure at an excellent institute in your country, but not certain.

**) Impact does not necessarily relate to impact factor of the journal the discovery was published in. Please consider how the findings impact on the broader research field(s).*

2.7.2 Impact on Oncode

Impact on Oncode will be evaluated based on the progress report and overview of Oncode contributions. The report details the narrative CV, non-scientific achievements, contribution to and benefit from Oncode, and an overview of indicators (patents, CPOC projects, collaborations, panel and committee memberships etc).

The Valorisation team and external valorisation experts will score:

Valorization:

- Excellent. Played a key role in starting an innovative company and/or in getting research findings into innovative (proof-of-concept) clinical trials and/or attracted substantial industry funding and/or created a substantial societal impact in another manner (e.g. open science, policy, communication to lay person/patient audiences).
- Good. Filed patents, and/or was involved in starting a company, and/or in developing (proof-of-concept) clinical trials, and/or attracted industry funding and/or created societal impact in another manner (e.g. open science, policy, communication to lay person/patient audiences). The major difference between 'good' vs 'excellent' is qualitative, not quantitative.

This category also includes those who show clear interest in valorising their science whenever possible. (e.g. frequently seek interaction with their BD, volunteer to engage with lay/patient audiences, etc).

- Poor. No or little concrete affinity with valorisation or working with BD.

The RMC will score:

- **Participation** in Oncode events & Contribution to institute (panels, meeting organization, engagement activities, running facility, training and mentoring):
 - Excellent: e.g. very frequently involved in Oncode activities, takes initiative, very responsive to requests
 - Good: e.g. regularly involved in Oncode activities, passive contribution, responsive to requests
 - Poor: e.g. rarely involved in Oncode activities, relatively invisible, not very responsive to requests.
- **Collaboration** (career stage taken into account):
 - Excellent: Central figure, many high quality collaborations with OIs, also outside of the home institute. Is also involved in collaborations that strengthen the science of other Oncode PIs. His/her research/technologies clearly important for research or valorisation of a substantial number of OIs.
 - Good: Several new high quality collaborations with OIs, some also outside of the home institute.
 - Poor: Some collaborations, but mainly within home institute.

The RMC will give a final *Impact on Oncode* score and corresponding argumentation.

2.8 Final scoring Impact on Oncode (E = excellent; G = good; P = poor):

1. Top tier. E/E/E or E/E/G or E/G/G (irrespective of which category). Clearly a must-keep member of the community.
2. Upper middle tier. E/E/P or E/G/P or G/G/G (irrespective of which category). Good member of the community.
3. Lower middle tier. E/P/P or G/G/P (irrespective of which category). Somewhat contributing member of the community.
4. Low Tier. G/P/P or P/P/P (irrespective of which category). Does not contribute substantially to the community.

3. Selection

3.1 Selection process

Final scores, together with possible strategic considerations, will result in proposal for yes/no continuation of OIs for phase II, to be evaluated by the IAB. IAB advice will then be considered by IRC. The IRC will formulate a final advice to the MB for yes/no continuation of OIs for phase II, taking into account the RMC report and IAB advice. The MB will make the final decision.

3.2 Selection criteria*:

- | | |
|---|--------------------------|
| 1. Science score 4 AND/OR Impact score 4 | = not invited to phase 2 |
| 2. Science score 3 AND Contribution score 3 | = not invited to phase 2 |
| 3. Any other combination | = invited to phase 2 |

* *outcome selection criteria subject to change, depending on final phase 2 budget.*

4. External reviewers

Reviewers have been selected from a list compiled by the team of OIs, containing all of the suggestions provided by the individual OIs. The RMC has cross-checked the list, with particular focus on (1) the fit of each reviewer in the fields of expertise for which they were suggested, (2) any obvious conflict of interest with the Institute itself, (3) experience.

From this shortlist, candidates have been selected giving preference to reviewers clearly established in their field, that have been (where possible) suggested by more than one OI, whose contribution to the reviewing committee would ensure that the panel offers a good gender and expertise balance. Conflict of interest has been taken into consideration in all steps of the selection.

All reviewers have signed a confidentiality agreement, declared any impeding conflict of interest, and will receive a nominal financial refund of 100 euros per report reviewed.

5. Timelines

- August 31st: deadline assessment dossier
- December 3rd: Combined review report from the RMC to IAB
- Mid January: IAB meeting
- February 16: IRC meeting
- End of Feb: Advice IRC
- Early March: decision MB

6. Appeal procedure

- Lodge appeal to Oncode within 4 weeks after the decision has been communicated including reasons of objection
- Step 1: Complainant discusses with Head of the institute and one additional member of the MB, discussion focuses on the assessment and selection procedures
- Step 2: A committee will be tasked to determine if the procedure and the individual evaluation has been carried out carefully. The committee will give an advice to the MB.
- The committee will comprise of 1 IAB member, 1 SB member and an external reviewer

The appeal may be filed with Ester Frische, Head of Research & Community support (ester.frische@oncode.nl).