INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI 2005–2010

RC-Specific Evaluation of ID-TM – Inflammatory Diseases-towards Translational Medicine

Seppo Saari & Antti Moilanen (Eds.)
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Summary:
Researcher Community (RC) was a new concept of the participating unit in the evaluation. Participation in the evaluation was voluntary and the RCs had to choose one of the five characteristic categories to participate.

Evaluation of the Researcher Community was based on the answers to the evaluation questions. In addition a list of publications and other activities were provided by the TUHAT system. The CWTS/Leiden University conducted analyses for 80 RCs and the Helsinki University Library for 66 RCs. Panellists, 49 and two special experts in five panels evaluated all the evaluation material as a whole and discussed the feedback for RC-specific reports in the panel meetings in Helsinki. The main part of this report is consisted of the feedback which is published as such in the report.

Chapters in the report:
1. Background for the evaluation
2. Evaluation feedback for the Researcher Community
3. List of publications
4. List of activities
5. Bibliometric analyses

The level of the RCs' success can be concluded from the written feedback together with the numeric evaluation of four evaluation questions and the category fitness. More conclusions of the success can be drawn based on the University-level report.

RC-specific information:
Main scientific field of research: Medicine, Biomedicine and Health Sciences
RC-specific keywords: Inflammation, Diseases, Translational Medicine, Immunology, Genetics, Biomedicine, Health Sciences

Participation category:
2. Research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear breakthrough

RC's responsible person:
Lokki, Marja-Liisa

Keywords:
Research Evaluation, Meta-evaluation, Doctoral Training, Bibliometric Analyses, Researcher Community
Foreword

The evaluation of research and doctoral training is being carried out in the years 2010–2012 and will end in 2012. The steering group appointed by the Rector in January 2010 set the conditions for participating in the evaluation and prepared the Terms of Reference to present the evaluation procedure and criteria. The publications and other scientific activities included in the evaluation covered the years 2005–2010.

The participating unit in the evaluation was defined as a Researcher Community (RC). To obtain a critical mass with university-level impact, the number of members was set to range from 20 to 120. The RCs were required to contain researchers in all stages of their research career, from doctoral students to principal investigators (PIs). All in all, 136 Researcher Communities participated in this voluntary evaluation, 5857 persons in total, of whom 1131 were principal investigators. PIs were allowed to participate in two communities in certain cases, and 72 of them used this opportunity and participated in two RCs.

This evaluation enabled researchers to define RCs from the “bottom up” and across disciplines. The aim of the evaluation was not to assess individual performance but a community with shared aims and researcher-training activities. The RCs were able to choose among five different categories that characterised the status and main aims of their research. The steering group considered the process of applying to participate in the evaluation to be important, which lead to the establishment of these categories. In addition, providing a service for the RCs to enable them to benchmark their research at the global level was a main goal of the evaluation.

The data for the evaluation consisted of the RCs’ answers to evaluation questions on supplied e-forms and a compilation extracted from the TUHAT – Research Information System (RIS) on 12 April 2011. The compilation covered scientific and other publications as well as certain areas of scientific activities. During the process, the RCs were asked to check the list of publications and other scientific activities and make corrections if needed. These TUHAT compilations are public and available on the evaluation project sites of each RC in the TUHAT-RIS.

In addition to the e-form and TUHAT compilation, University of Leiden (CWTS) carried out bibliometric analyses from the articles included in the Web of Science (WoS). This was done on University and RC levels. In cases where the publication forums of the RC were clearly not represented by the WoS data, the Library of the University of Helsinki conducted a separate analysis of the publications. This was done for 66 RCs representing the humanities and social sciences.

The evaluation office also carried out an enquiry targeted to the supervisors and PhD candidates about the organisation of doctoral studies at the University of Helsinki. This and other documents describing the University and the Finnish higher education system were provided to the panellists.

The panel feedback for each RC is unique and presented as an entity. The first collective evaluation reports available for the whole panel were prepared in July–August 2011. The reports were accessible to all panel members via the electronic evaluation platform in August. Scoring from 1 to 5 was used to complement written feedback in association with evaluation questions 1–4 (scientific focus and quality, doctoral training, societal impact, cooperation) and in addition to the category evaluating the fitness for participation in the evaluation. Panellists used the international level as a point of comparison in the evaluation. Scoring was not expected to go along with a preset deviation.

Each of the draft reports were discussed and dealt with by the panel in meetings in Helsinki (from 11 September to 13 September or from 18 September to 20 September 2011). In these meetings the panels also examined the deviations among the scores and finalised the draft reports together.

The current RC-specific report deals shortly with the background of the evaluation and the terms of participation. The main evaluation feedback is provided in the evaluation report, organised according to the evaluation questions. The original material provided by the RCs for the panellists has been attached to these documents.
On behalf of the evaluation steering group and office, I sincerely wish to thank you warmly for your participation in this evaluation. The effort you made in submitting the data to TUHAT-RIS is gratefully acknowledged by the University. We wish that you find this panel feedback useful in many ways. The bibliometric profiles may open a new view on your publication forums and provide a perspective for discussion on your choice of forums. We especially hope that this evaluation report will help you in setting the future goals of your research.

Johanna Björkroth  
Vice-Rector  
Chair of the Steering Group of the Evaluation

Steering Group of the evaluation  
Steering group, nominated by the Rector of the University, was responsible for the planning of the evaluation and its implementation having altogether 22 meetings between February 2010 and March 2012.

Chair  
Vice-Rector, professor Johanna Björkroth

Vice-Chair  
Professor Marja Airaksinen

Chief Information Specialist, Dr Maria Forsman  
Professor Arto Mustajoki  
University Lecturer, Dr Kirsi Pyhältö  
Director of Strategic Planning and Development, Dr Ossi Tuomi  
Doctoral candidate, MSocSc Jussi Vauhkonen
Panel members

CHAIR
Professor Lorenz Poellinger
Cancer biology, cell and molecular biology
Karolinska Institute, Sweden

VICE-CHAIR
Professor Cornelia van Duijn
Genetic epidemiology, Alzheimer's disease and related disorders
Erasmus Medical Centre, the Netherlands

Professor Johanna Ivaska
Molecular cell biology, cell adhesion, cancer biology
University of Turku, VTT Technical Research Centre, Finland

Professor Olli Lassila
Immunology, medical microbiology
University of Turku, Finland

Professor Hans-Christian Pape
Neuroscience, neurophysiology
University of Münster, Germany

Professor Thomas Ruzicka
Dermatology, allergology
Ludwig-Maximilians-Universität (LMU) München, Germany

Professor Lars Terenius
Experimental alcohol and drug dependence research, mental disorders, preventive medicine
Karolinska Institute, Sweden

Professor Peter York
Physical pharmaceutics, pharmaceutical chemistry, pharmaceutical technology
University of Bradford, Great Britain

The panel, independently, evaluated all the submitted material and was responsible for the feedback of the RC-specific reports. The panel members were asked to confirm whether they had any conflict of interests with the RCs. If this was the case, the panel members disqualified themselves in discussion and report writing.

Added expertise to the evaluation was contributed by two evaluators outside the panels and by three members from the other panels.

External Experts
Professor Olli Carpén
Pathology, cancer cell metastasis
University of Turku
Finland

Professor Anders Linde
Oral biochemistry
Faculty of Odontology
Göteborg University
Sweden
Experts from the Other Panels
Professor Jan-Otto Carlsson, from the Panel of Natural Sciences
Professor Danny Huylebroek, from the Panel of Biological, Agricultural and Veterinary Sciences
Professor Holger Stark, from the Panel of Natural Sciences

EVALUATION OFFICE
Dr Seppo Saari, Doc., Senior Adviser in Evaluation, was responsible for the entire evaluation, its planning and implementation and acted as an Editor-in-chief of the reports.
Dr Eeva Sievi, Doc., Adviser, was responsible for the registration and evaluation material compilations for the panellists. She worked in the evaluation office from August 2010 to July 2011.
MScSc Paula Ranne, Planning Officer, was responsible for organising the panel meetings and all the other practical issues like agreements and fees and editing a part the RC-specific reports. She worked in the evaluation office from March 2011 to January 2012.
Mr Antti Molanen, Project Secretary, was responsible for editing the reports. He worked in the evaluation office from January 2012 to April 2012.

TUHAT OFFICE
Provision of the publication and other scientific activity data
Mrs Aija Kaitera, Project Manager of TUHAT-RIS served the project ex officio providing the evaluation project with the updated information from TUHAT-RIS. The TUHAT office assisted in mapping the publications with CWTS/University of Leiden.
MA Liisa Ekebom, Assisting Officer, served in TUHAT-RIS updating the publications for the evaluation. She also assisted the UH/Library analyses.
BA Liisa Jäppinen, Assisting Officer, served in TUHAT-RIS updating the publications for the evaluation.

HELSINKI UNIVERSITY LIBRARY
Provision of the publication analyses
Dr Maria Forsman, Chief Information Specialist in the Helsinki University Library, managed with her 10 colleagues the bibliometric analyses in humanities, social sciences and in other fields of sciences where CWTS analyses were not applicable.
Acronyms and abbreviations applied in the report

External competitive funding
AF – Academy of Finland
TEKES - Finnish Funding Agency for Technology and Innovation
EU - European Union
ERC - European Research Council
International and national foundations
FP7/6 etc. /Framework Programmes/Funding of European Commission

Evaluation marks
Outstanding (5)
Excellent (4)
Very Good (3)
Good (2)
Sufficient (1)

Abbreviations of Bibliometric Indicators
P - Number of publications
TCS – Total number of citations
MCS - Number of citations per publication, excluding self-citations
PNC - Percentage of uncited publications
MNCS - Field-normalized number of citations per publication
MNJS - Field-normalized average journal impact
THCP10 - Field-normalized proportion highly cited publications (top 10%)
INT_COV - Internal coverage, the average amount of references covered by the WoS
WoS – Thomson Reuters Web of Science Databases

Participation category
Category 1. The research of the participating community represents the international cutting edge in its field.
Category 2. The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.
Category 3. The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.
Category 4. The research of the participating community represents an innovative opening.
Category 5. The research of the participating community has a highly significant societal impact.

Research focus areas of the University of Helsinki
Focus area 1: The basic structure, materials and natural resources of the physical world
Focus area 2: The basic structure of life
Focus area 3: The changing environment – clean water
Focus area 4: The thinking and learning human being
Focus area 5: Welfare and safety
Focus area 6: Clinical research
Focus area 7: Precise reasoning
Focus area 8: Language and culture
Focus area 9: Social justice
Focus area 10: Globalisation and social change
1 Introduction to the Evaluation

1.1 RC-specific evaluation reports

The participants in the evaluation of research and doctoral training were Researcher Communities (hereafter referred to as the RC). The RC refers to the group of researchers who registered together in the evaluation of their research and doctoral training. Preconditions in forming RCs were stated in the Guidelines for the Participating Researcher Communities. The RCs defined themselves whether their compositions should be considered well-established or new.

It is essential to emphasise that the evaluation combines both meta-evaluation\(^1\) and traditional research assessment exercise and its focus is both on the research outcomes and procedures associated with research and doctoral training. The approach to the evaluation is enhancement-led where self-evaluation constituted the main information. The answers to the evaluation questions formed together with the information of publications and other scientific activities an entity that was to be reviewed as a whole.

The present evaluation recognizes and justifies the diversity of research practices and publication traditions. Traditional Research Assessment Exercises do not necessarily value high quality research with low volumes or research distinct from mainstream research. It is challenging to expose the diversity of research to fair comparison. To understand the essence of different research practices and to do justice to their diversity was one of the main challenges of the present evaluation method. Understanding the divergent starting points of the RCs demanded sensitivity from the evaluators.

1.2 Aims and objectives in the evaluation

The aims of the evaluation are as follows:

- to improve the level of research and doctoral training at the University of Helsinki and to raise their international profile in accordance with the University's strategic policies. The improvement of doctoral training should be compared to the University's policy.\(^2\)
- to enhance the research conducted at the University by taking into account the diversity, originality, multidisciplinary nature, success and field-specificity,
- to recognize the conditions and prerequisites under which excellent, original and high-impact research is carried out,
- to offer the academic community the opportunity to receive topical and versatile international peer feedback,
- to better recognize the University's research potential.
- to exploit the University's TUHAT research information system to enable transparency of publishing activities and in the production of reliable, comparable data.

1.3 Evaluation method

The evaluation can be considered as an enhancement-led evaluation. Instead of ranking, the main aim is to provide useful information for the enhancement of research and doctoral training of the participating RCs. The comparison should take into account each field of science and acknowledge their special character.

\(^1\) The panellists did not read research reports or abstracts but instead, they evaluated answers to the evaluation questions, tables and compilations of publications, other scientific activities, bibliometrics or comparable analyses.

\(^2\) Policies on doctoral degrees and other postgraduate degrees at the University of Helsinki.
The comparison produced information about the present status and factors that have lead to success. Also challenges in the operations and outcomes were recognized.

The evaluation approach has been designed to recognize better the significance and specific nature of researcher communities and research areas in the multidisciplinary top-level university. Furthermore, one of the aims of the evaluation is to bring to light those evaluation aspects that differ from the prevalent ones. Thus the views of various fields of research can be described and research arising from various starting points understood better. The doctoral training is integrated into the evaluation as a natural component related to research. Operational processes of doctoral training are being examined in the evaluation.

**Five stages of the evaluation method were:**

1. Registration – Stage 1
2. Self-evaluation – Stage 2
3. TUHAT\(^3\) compilations on publications and other scientific activities\(^4\)
4. External evaluation
5. Public reporting

### 1.4 Implementation of the external evaluation

**Five Evaluation Panels**

Five evaluation panels consisted of independent, renowned and highly respected experts. The main domains of the panels are:

1. biological, agricultural and veterinary sciences
2. medicine, biomedicine and health sciences
3. natural sciences
4. humanities
5. social sciences

The University invited 10 renowned scientists to act as chairs or vice-chairs of the five panels based on the suggestions of faculties and independent institutes. Besides leading the work of the panel, an additional role of the chairs was to discuss with other panel chairs in order to adopt a broadly similar approach. The panel chairs and vice-chairs had a pre-meeting on 27 May 2011 in Amsterdam.

The panel compositions were nominated by the Rector of the University 27 April 2011. The participating RCs suggested the panel members. The total number of panel members was 50. The reason for a smaller number of panellists as compared to the previous evaluations was the character of the evaluation as a meta-evaluation. The panellists did not read research reports or abstracts but instead, they evaluated answers to the evaluation questions, tables and compilations of publications, other scientific activities, bibliometrics and comparable analyses.

The panel meetings were held in Helsinki:

- On 11–13 September 2011: (1) biological, agricultural and veterinary sciences, (2) medicine, biomedicine and health sciences and (3) natural sciences.
- On 18–20 September 2011: (4) humanities and (5) social sciences.

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\(^3\) TUHAT (acronym) of Research Information System (RIS) of the University of Helsinki

\(^4\) Supervision of thesis, prizes and awards, editorial work and peer reviews, participation in committees, boards and networks and public appearances.
1.5 Evaluation material

The main material in the evaluation was the RCs' self-evaluations that were qualitative in character and allowed the RCs to choose what was important to mention or emphasise and what was left unmentioned.

The present evaluation is exceptional at least in the Finnish context because it is based on both the evaluation documentation (self-evaluation questions, publications and other scientific activities) and the bibliometric reports. All documents were delivered to the panellists for examination.

Traditional bibliometrics can be reasonably done mainly in medicine, biosciences and natural sciences when using the Web of Science database, for example. Bibliometrics, provided by CWTS/The Centre for Science and Technology Studies, University of Leiden, cover only the publications that include WoS identification in the TUHAT-RIS.

Traditional bibliometrics are seldom relevant in humanities and social sciences because the international comparable databases do not store every type of high quality research publications, such as books and monographs and scientific journals in other languages than English. The Helsinki University Library has done analysis to the RCs, if their publications were not well represented in the Web of Science databases (RCs should have at least 50 publications and internal coverage of publications more than 40%) – it meant 58 RCs. The bibliometric material for the evaluation panels was available in June 2011. The RC-specific bibliometric reports are attached at the end of each report.

The panels were provided with the evaluation material and all other necessary background information, such as the basic information about the University of Helsinki and the Finnish higher education system.

Evaluation material
1. Registration documents of the RCs for the background information
2. Self evaluation material – answers to the evaluation questions
3. Publications and other scientific activities based on the TUHAT RIS:
   3.1. statistics of publications
   3.2. list of publications
   3.3. statistics of other scientific activities
   3.4. list of other scientific activities
4. Bibliometrics and comparable analyses:
   4.1. Analyses of publications based on the verification of TUHAT-RIS publications with the Web of Science publications (CWTS/University of Leiden)
   4.2. Publication statistics analysed by the Helsinki University Library - mainly for humanities and social sciences
5. University level survey on doctoral training (August 2011)
6. University level analysis on publications 2005–2010 (August 2011) provided by CWTS/University of Leiden

Background material

University of Helsinki
- Basic information about the University of the Helsinki
- The structure of doctoral training at the University of Helsinki
- Previous evaluations of research at the University of Helsinki – links to the reports: 1998 and 2005

The Finnish Universities/Research Institutes
- Finnish University system
- Evaluation of the Finnish National Innovation System
- The State and Quality of Scientific Research in Finland, Publication of the Academy of Finland 9/09.

The evaluation panels were provided also with other relevant material on request before the meetings in Helsinki.
1.6 Evaluation questions and material

The participating RCs answered the following evaluation questions which are presented according to the evaluation form. In addition, TUHAT RIS was used to provide the additional material as explained. For giving the feedback to the RCs, the panellists received the evaluation feedback form constructed in line with the evaluation questions:

1. Focus and quality of the RC’s research
   - Description of
     - the RC’s research focus.
     - the quality of the RC’s research (incl. key research questions and results)
     - the scientific significance of the RC’s research in the research field(s)
   - Identification of the ways to strengthen the focus and improve the quality of the RC’s research

   The additional material: TUHAT compilation of the RC’s publications, analysis of the RC’s publications data (provided by University of Leiden and the Helsinki University Library)

   A written feedback from the aspects of: scientific quality, scientific significance, societal impact, innovativeness
   - Strengths
   - Areas of development
   - Other remarks
   - Recommendations

   Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

2. Practises and quality of doctoral training
   - Organising of the doctoral training in the RC. Description of the RC’s principles for:
     - recruitment and selection of doctoral candidates
     - supervision of doctoral candidates
     - collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes
     - good practises and quality assurance in doctoral training
   - Identification of the ways to strengthen the societal impact of the RC’s research and doctoral training.

   The additional material: TUHAT compilation of the RC’s other scientific activities/supervision of doctoral dissertations

   A written feedback from the aspects of: processes and good practices related to leadership and management
   - Strengths
   - Areas of development
   - Other remarks
   - Recommendations

   Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

3. The societal impact of research and doctoral training
   - Description on how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).
   - Identification of the ways to strengthen the societal impact of the RC’s research and doctoral training.

   The additional material: TUHAT compilation of the RC’s other scientific activities.

   A written feedback from the aspects of: societal impact, national and international collaboration, innovativeness
   - Strengths
   - Areas of development
   - Other remarks
   - Recommendations

   Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)
4. International and national (incl. intersectoral) research collaboration and researcher mobility
   • Description of
     - the RC’s research collaborations and joint doctoral training activities
     - how the RC has promoted researcher mobility
   • Identification of the RC’s strengths and challenges related to research collaboration and
     researcher mobility, and the actions planned for their development.

A written feedback from the aspects of: scientific quality, national and international collaboration
   • Strengths
   • Areas of development
   • Other remarks
   • Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

5. Operational conditions
   • Description of the operational conditions in the RC’s research environment (e.g. research
     infrastructure, balance between research and teaching duties).
   • Identification of the RC’s strengths and challenges related to operational conditions, and the
     actions planned for their development.

A written feedback from the aspects of: processes and good practices related to leadership and
management
   • Strengths
   • Areas of development
   • Other remarks
   • Recommendations

6. Leadership and management in the researcher community
   • Description of
     - the execution and processes of leadership in the RC
     - how the management-related responsibilities and roles are distributed in the RC
     - how the leadership- and management-related processes support
       - high quality research
       - collaboration between principal investigators and other researchers in the RC
       - the RC’s research focus
     - strengthening of the RC’s know-how
   • Identification of the RC’s strengths and challenges related to leadership and management, and
     the actions planned for developing the processes

7. External competitive funding of the RC
   • The RCs were asked to provide information of such external competitive funding, where:
     - the funding decisions have been made during 1.1.2005-31.12.2010, and
     - the administrator of the funding is/has been the University of Helsinki
   • On the e-form the RCs were asked to provide:
     1) The relevant funding source(s) from a given list (Academy of Finland/Research Council, TEKES/The
        Finnish Funding Agency for Technology and Innovation, EU, ERC, foundations, other national funding
        organisations, other international funding organisations), and
     2) The total sum of funding which the organisation in question had decided to allocate to the RCs

Competitive funding reported in the text is also to be considered when evaluating this point.
A written feedback from the aspects of: scientific quality, scientific significance, societal impact,
innovativeness, future significance
   • Strengths
   • Areas of development
   • Other remarks
   • Recommendations

8. The RC’s strategic action plan for 2011–2013
   • RC’s description of their future perspectives in relation to research and doctoral training.
   A written feedback from the aspects of: scientific quality, scientific significance, societal impact, processes
   and good practices related to leadership and management, national and international collaboration,
   innovativeness, future significance
   • Strengths
   • Areas of development
9. Evaluation of the category of the RC in the context of entity of the evaluation material (1-8)

The RC’s fitness to the chosen participation category
A written feedback evaluating the RC’s fitness to the chosen participation category
- Strengths
- Areas of development
- Other remarks
- Recommendations

Numeric evaluation: OUTSTANDING (5), EXCELLENT (4), VERY GOOD (3), GOOD (2), SUFFICIENT (1)

10. Short description of how the RC members contributed the compilation of the stage 2 material
Comments on the compilation of evaluation material

11. How the UH’s focus areas are presented in the RC’s research?
Comments if applicable

12. RC-specific main recommendations based on the previous questions 1-11

13. RC-specific conclusions

1.7 Evaluation criteria

The panellists were expected to give evaluative and analytical feedback to each evaluation question according to their aspects in order to describe and justify the quality of the submitted material. In addition, the evaluation feedback was asked to be pointed out the level of the performance according to the following classifications:
- outstanding (5)
- excellent (4)
- very good (3)
- good (2)
- sufficient (1)

Evaluation according to the criteria was to be made with thorough consideration of the entire evaluation material of the RC in question. Finally, in questions 1-4 and 9, the panellists were expected to classify their written feedback into one of the provided levels (the levels included respective descriptions, ‘criteria’). Some panels used decimals in marks. The descriptive level was interpreted according to the integers and not rounding up the decimals by the editors.

Description of criteria levels

Question 1 – FOCUS AND QUALITY OF THE RC’S RESEARCH

Classification: Criteria (level of procedures and results)

Outstanding quality of procedures and results (5)
Outstandingly strong research, also from international perspective. Attracts great international interest with a wide impact, including publications in leading journals and/or monographs published by leading international publishing houses. The research has world leading qualities. The research focus, key research questions scientific significance, societal impact and innovativeness are of outstanding quality.

In cases where the research is of a national character and, in the judgement of the evaluators, should remain so, the concepts of “international attention” or “international impact” etc. in the grading criteria above may be replaced by “international comparability”.

10
Operations and procedures are of outstanding quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are in alignment with the documentation. The ambition to develop the community together is of outstanding quality.

**Excellent quality of procedures and results (4)**

Research of excellent quality. Typically published with great impact, also internationally. Without doubt, the research has a leading position in its field in Finland.

Operations and procedures are of excellent quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of excellent quality.

**Very good quality of procedures and results (3)**

The research is of such very good quality that it attracts wide national and international attention.

Operations and procedures are of very good quality, transparent and shared in the community. The improvement of research and other efforts are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of very good quality.

**Good quality of procedures and results (2)**

Good research attracting mainly national attention but possessing international potential, extraordinarily high relevance may motivate good research.

Operations and procedures are of good quality, shared occasionally in the community. The improvement of research and other efforts are occasionally documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of good quality.

**Sufficient quality of procedures and results (1)**

In some cases the research is insufficient and reports do not gain wide circulation or do not have national or international attention. Research activities should be revised.

Operations and procedures are of sufficient quality, shared occasionally in the community. The improvement of research and other efforts are occasionally documented and operations and practices are to some extent in alignment with the documentation. The ambition to develop the community together is of sufficient quality.

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**Question 2 – DOCTORAL TRAINING**

**Question 3 – SOCIETAL IMPACT**

**Question 4 – COLLABORATION**

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**Classification: Criteria (level of procedures and results)**

**Outstanding quality of procedures and results (5)**

Procedures are of outstanding quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are in alignment with the documentation. The ambition to develop the community together is of outstanding quality. The procedures and results are regularly evaluated and the feedback has an effect on the planning.

**Excellent quality of procedures and results (4)**

Procedures are of excellent quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of excellent quality. The procedures and outcomes are evaluated and the feedback has an effect on the planning.

**Very good quality of procedures and results (3)**

Procedures are of very good quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and
management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of very good quality.

**Good quality of procedures and results (2)**

Procedures are of good quality, shared occasionally in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are documented and operations and practices are to large extent in alignment with the documentation. The ambition to develop the community together is of good quality.

**Sufficient quality of procedures and results (1)**

Procedures are of sufficient quality, transparent and shared in the community. The practices and quality of doctoral training/societal impact/international and national collaboration/leadership and management are occasionally documented and operations and practices are to some extent in alignment with the documentation. The ambition to develop the community together is of sufficient quality.

**Question 9 – CATEGORY**

Participation category – fitness for the category chosen

The choice and justification for the chosen category below should be reflected in the RC’s responses to the evaluation questions 1–8.

1. *The research of the participating community represents the international cutting edge in its field.*
2. *The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.*
3. *The research of the participating community is distinct from mainstream research, and the special features of the research tradition in the field must be considered in the evaluation.* The research is of high quality and has great significance and impact in its field. However, the generally used research evaluation methods do not necessarily shed sufficient light on the merits of the research.
4. *The research of the participating community represents an innovative opening.* A new opening can be an innovative combination of research fields, or it can be proven to have a special social, national or international demand or other significance. Even if the researcher community in its present composition has yet to obtain proof of international success, its members can produce convincing evidence of the high level of their previous research.
5. *The research of the participating community has a highly significant societal impact.* The participating researcher community is able to justify the high social significance of its research. The research may relate to national legislation, media visibility or participation in social debate, or other activities promoting social development and human welfare. In addition to having societal impact, the research must be of a high standard.

**An example of outstanding fitness for category choice (5)**

The RC’s representation and argumentation for the chosen category were convincing. The RC recognized its real capacity and apparent outcomes in a wider context to the research communities. The specific character of the RC was well-recognized and well stated in the responses. The RC fitted optimally for the category.

- Outstanding (5)
- Excellent (4)
- Very good (3)
- Good (2)
- Sufficient (1)

The above-mentioned definition of outstanding was only an example in order to assist the panellists in the positioning of the classification. There was no exact definition for the category fitness.

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5 The panels discussed the category fitness and made the final conclusions of the interpretation of it.
1.8 Timetable of the evaluation

The main timetable of the evaluation:

1. Registration  November 2010
3. External peer review  May–September 2011
4. Published reports  March–April 2012
   - University level public report
   - RC specific reports

The entire evaluation was implemented during the university’s strategy period 2010–2012. The preliminary results were available for the planning of the following strategy period in late autumn 2011. The evaluation reports will be published in March/April 2012. More detailed time schedule is published in the University report.

1.9 Evaluation feedback – consensus of the entire panel

The panellists evaluated all the RC-specific material before the meetings in Helsinki and mailed the draft reports to the evaluation office. The latest interim versions were on-line available to all the panellists on the Wiki-sites. In September 2011, in Helsinki the panels discussed the material, revised the first draft reports and decided the final numeric evaluation. After the meetings in Helsinki, the panels continued working and finalised the reports before the end of November 2011. The final RC-specific reports are the consensus of the entire panel.

The evaluation reports were written by the panels independently. During the editing process, the evaluation office requested some clarifications from the panels when necessary. The tone and style in the reports were not harmonized in the editing process. All the reports follow the original texts written by the panels as far as it was possible.

The original evaluation material of the RCs, provided for the panellists is attached at the end of the report. It is essential to notice that the exported lists of publications and other scientific activities depend how the data was stored in the TUHAT-RIS by the RCs.
2 Evaluation feedback

2.1 Focus and quality of the RC’s research

- Description of
  - the RC’s research focus
  - the quality of the RC’s research (incl. key research questions and results)
  - the scientific significance of the RC’s research in the research field(s)

- Identification of the ways to strengthen the focus and improve the quality of the RC’s research

ASPECTS: Scientific quality, scientific significance, societal impact, innovativeness

The RC is very heterogeneous covering areas around immunology from MHC genetics, transplantation immunology, allergy and cancer treatment with modified adenoviruses. The achievements are not very impressive only the ERC funding for professor Hemminki shows scientific excellence. Professor Renkonen’s achievements are also significant but he is already present also in the InfBio RC.

The RC is too small to survive and it should be fused to the RC led by Professor Meri (InfBio RC), where e.g. whole virology studied in Meilahti Campus is well represented.

Prof. Hemminki could also consider joining the CANBIO RC which is an outstanding RC led Prof. Kari Alitalo.

Numeric evaluation: 2 (Good)

2.2 Practises and quality of doctoral training

- Organising of the doctoral training in the RC. Description of the RC’s principles for:
  - recruitment and selection of doctoral candidates
  - supervision of doctoral candidates
  - collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes
  - good practises and quality assurance in doctoral training
  - assuring of good career perspectives for the doctoral candidates/fresh doctorates

- Identification of the RC’s strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.

- Additional material: TUHAT compilation of the RC’s other scientific activities/supervision of doctoral dissertations

ASPECTS: Processes and good practices related to leadership and management

The RC has produced 16 PhDs during 2005–2010 with a good selection and recruitment of doctoral candidates.

The RC has not been very active in developing the doctoral programme system in Meilahti campus area.

Recommendation

The RC should be more active in recruiting excellent PhD students and be more active in local doctoral programmes funded by the Ministry of Culture and Education and the Academy of Finland.

Numeric evaluation: 3 (Very good)
2.3 The societal impact of research and doctoral training

- Description on how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).
- Identification of the ways to strengthen the societal impact of the RC’s research and doctoral training.
- Additional material: TUHAT compilation of the RC’s other scientific activities.

ASPECTS: Societal impact, national and international collaboration, innovativeness

In some areas the RC is interacting well with the society, but the RC is too small to have enough significance and impact in research or doctoral training.

Recommendation
- Fuse the RC like described before.

Numeric evaluation: 3 (Very good)

2.4 International and national (incl. intersectoral) research collaboration and researcher mobility

- Description of
  - the RC’s research collaborations and joint doctoral training activities
  - how the RC has promoted researcher mobility
- Identification of the RC’s strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.

ASPECTS: Scientific quality, national and international collaboration

The RC has national collaboration with clinical departments and the National Institute for Health and Welfare but the data contains only international collaboration of Docent Lokki which is not very impressive but the continuation of the research collaboration with Freiburg and Toronto is important.

Numeric evaluation: 2 (Good)

2.5 Operational conditions

- Description of
  - the operational conditions in the RC’s research environment (e.g. research infrastructure, balance between research and teaching duties).
  - Identification of the RC’s strengths and challenges related to operational conditions, and the actions planned for their development.

ASPECTS: Processes and good practices related to leadership and management

From the description of Docent Lokki, it seems that the research infrastructure is well maintained, but some difficulties are faced like Prof. Renkonen is currently the Dean of Medical Faculty with limited time resources but other group leaders are almost full-time researchers. Operational conditions might be improved if this RC is fused with the InfBio RC.

2.6 Leadership and management in the researcher community

- Description of
  - the execution and processes of leadership in the RC
  - how the management-related responsibilities and roles are distributed in the RC
  - how the leadership- and management-related processes support
- high quality research
- collaboration between principal investigators and other researchers in the RC
- the RC's research focus
- strengthening of the RC’s know-how
- Identification of the RC's strengths and challenges related to leadership and management, and the actions planned for developing the processes

**ASPECTS: Processes and good practices related to leadership and management**

This RC has four principal investigators, but the panel recommends that it would be better led by e.g. Prof. Akseli Hemminki with highest scientific excellence or fused with the InfBio RC. The current situation is not optimal because the groups are more or less selected randomly and do not seem to have clear, common goals.

### 2.7 External competitive funding of the RC

- The RCs were asked to provide information of such external competitive funding, where:
  - the funding decisions have been made during 1.1.2005–31.12.2010, and
  - the administrator of the funding is/has been the University of Helsinki

- On the e-form the RCs were asked to provide:
  1. The relevant funding source(s) from a given list (Academy of Finland/Research Council, TEKES/The Finnish Funding Agency for Technology and Innovation, EU, ERC, foundations, other national funding organisations, other international funding organizations), and
  2. The total sum of funding which the organisation in question had decided to allocate to the RCs members during 1.1.2005–31.12.2010.

**Competitive funding reported in the text is also to be considered when evaluating this point.**

**ASPECTS: Scientific quality, scientific significance, societal impact, innovativeness and future significance**

The competitive external funding is excellent highlighted with ERC funding to Prof. Hemminki and almost all the group leaders have significant funding from the Academy of Finland and other funding is also impressive including EVO, Juselius etc. funding.

### 2.8 The RC’s strategic action plan for 2011–2013

- RC’s description of their future perspectives in relation to research and doctoral training.

**ASPECTS: Scientific quality, scientific significance, societal impact, processes and good practices related to leadership and management, national and international collaboration, innovativeness, future significance**

The funding for the RC is excellent also in the future, but better result in research would be obtained in a larger RC like InfBio.

The panel would recommend fusion of these two RCs to obtain more strategic value of this important area of infection and immunity for the Helsinki University and Meilahti campus.

### 2.9 Evaluation of the category of the RC in the context of entity of the evaluation material (1-8)

*The RC’s fitness to the chosen participation category.*

**Category 2.** The research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear break-through.
The RC without the InfBio RC does not fit to the chosen participation category.

**Numeric evaluation: 2 (Good)**

### 2.10 Short description of how the RC members contributed the compilation of the stage 2 material

It looks like that Docent Lokki has herself compiled the material and other principal investigators have provided some information, but the material might lack some important aspects from other participants like national and international collaboration etc.

### 2.11 How the UH's focus areas are presented in the RC's research

**Focus area 6: Clinical research**

No comment at this stage but the fusion with the InfBio RC maybe in the future be covered as an important research area of UH.

### 2.12 RC-specific main recommendations

The RC as such does not have a clear focus and this RC should be fused to the InfBio RC in order to create a real Research Programme covering immunology, virology, bacteriology and infection and transplantation and this fusion would allow a great chance for translational medicine.

### 2.13 RC-specific conclusions

The RC in the current form is too small and diverse and does not seem to have a common goal. The RC with four principal investigators has excellent funding, but they would be more suitable in the InfBio RC. The fusion of these two RCs would be more impressive and significant RC.

### 2.14 Preliminary findings in the University-level evaluation

This RC led by Docent Lokki should be fused with the InfBio RC in order to create a critical mass of impressive research in their research areas.
3 Appendices

A. Original evaluation material
   a. Registration material – Stage 1
   b. Answers to evaluation questions – Stage 2
   c. List of publications
   d. List of other scientific activities

B. Bibliometric analyses
   a. Analysis provided by CWTS/University of Leiden
   b. Analysis provided by Helsinki University Library (66 RCs)
International evaluation of research and doctoral training at the University of Helsinki 2005-2010

RC-SPECIFIC MATERIAL FOR THE PEER REVIEW

NAME OF THE RESEARCHER COMMUNITY:
Inflammatory Diseases-towards Translational Medicine (ID-TM)

LEADER OF THE RESEARCHER COMMUNITY:
Research Director Marja-Liisa Lokki, Transplantation Laboratory, Haartman Institute, Faculty of Medicine

RC-SPECIFIC MATERIAL FOR THE PEER REVIEW:

- Material submitted by the RC at stages 1 and 2 of the evaluation
  - STAGE 1 material: RC’s registration form (incl. list of RC participants in an excel table)
  - STAGE 2 material: RC’s answers to evaluation questions

- TUHAT compilations of the RC members’ other scientific activities 1.1.2005-31.12.2010
  (analysis carried out by CWTS, Leiden University)

NB! Since Web of Science(WoS)-based bibliometrics does not provide representative results for most RCs representing humanities, social sciences and computer sciences, the publications of these RCs will be analyzed by the UH Library (results available by the end of June, 2011)
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 1 MATERIAL (registration form)

1 RESPONSIBLE PERSON

Name: Lokki, Marja-Liisa
E-mail: maisa.lokki@helsinki.fi
Phone: +358 9 191 26614
Affiliation: Haartman Institute, University of Helsinki
Street address: Haartmaninkatu 3, 00290 Helsinki

2 DESCRIPTION OF THE PARTICIPATING RESEARCHER COMMUNITY (RC)

Name of the participating RC (max. 30 characters): Inflammatory Diseases-towards Translational Medicine
Acronym for the participating RC (max. 10 characters): ID-TM

Description of the operational basis in 2005-2010 (eg. research collaboration, joint doctoral training activities) on which the RC was formed (MAX. 2200 characters with spaces):

This RC joins groups sharing interest and research in translational medicine of inflammation and immunology. The groups are situated at the Transplantation Laboratory and altogether the RC has high-quality equipment and wide spectrum of methodology at their disposal. Professor Renkonen’s group has focused on the glycobiology of inflammatory diseases and has implemented systems biology approaches in investigations of the mechanism of type I allergic reactions. The research focus in Docent Lokki’s group is the influence of the MHC genes on prolonged inflammatory reactions predisposing tissues to various diseases, especially atherosclerosis and recurrent infectious diseases. MHC genes are also the main determinants regulating the inflammatory reactions in tissue transplantsations. Docent Lemström’s group has investigated the inflammation and immunology of transplant rejection showing interplay of inflammation, angiogenesis and arteriosclerosis in transplanted grafts. Since immunological aspects have emerged important in the treatment of cancer, Research professor Hemminki’s group has studied how to break the immunological tolerance of a tumor by manipulating the immune system with oncolytic adenoviruses. We all research inflammation and immunology, with a different approach to the problems. The groups have high ability to work independently. However, together we have the background for both basic and clinical research and share the aim to quickly translate the results of basic research into the clinical setting. Renkonen’s group has extensive experience in basic immunology and human research while Lemström’s unit has strong experience and facilities in animal research. Both, however, lack the ability to study the genetical aspect which will be complemented by Lokki’s group. Hemminki’s group has strong basic research effort into the immunology of gene therapy and utilization of immunostimulatory approaches for the treatment of cancer.

In the future, RC will allow joint doctoral training without group-to-group borders to cross gaining the advantage of both full-time laboratory workers and doctors working mainly in clinics. This facilitates translational medicine.
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 1 MATERIAL (registration form)

3 SCIENTIFIC FIELDS OF THE RC

Main scientific field of the RC’s research: medicine, biomedicine and health sciences

RC’s scientific subfield 1: Immunology

RC’s scientific subfield 2: Genetics and Heredity

RC’s scientific subfield 3: Biochemistry and Molecular Biology

RC’s scientific subfield 4: Select

Other, if not in the list: Translational Medicine

4 RC’S PARTICIPATION CATEGORY

Participation category: 2. Research of the participating community is of high quality, but the community in its present composition has yet to achieve strong international recognition or a clear breakthrough

Justification for the selected participation category (MAX. 2200 characters with spaces): All the groups that are to be combined have a history of high-quality international research in their respective fields. However, as international competition is getting harder, it is essential to form larger and stronger units in order to keep up the present standards and improve them. We believe that the new composition in this RC will give us sufficient strength to gain international recognition. More importantly, the enhanced cooperation will help us with our main aim, that is translating our basic research into working clinical treatments.

5 DESCRIPTION OF THE RC’S RESEARCH AND DOCTORAL TRAINING

Public description of the RC’s research and doctoral training (MAX. 2200 characters with spaces): Prof. Renkonen’s group has focused on the glycobiology of inflammatory diseases, the research focus in Docent Lokki’s group is the influence of the MHC genes on prolonged inflammatory reactions predisposing tissues to various diseases. Docent Lemström’s group has investigated the inflammation and immunology of transplant rejection showing interplay of inflammation, angiogenesis and arteriosclerosis and since immunological aspects have emerged important in the treatment of cancer, Research professor Hemminki’s group has studied how to break the immunological tolerance of a tumor.

Renkonen’s group: Out of the twelve PhD thesis this group has accomplished since 1993, two fall into the evaluation period (JuhaPekka Pitkänen 2005, Jaana Niittymäki, 2007). We have now 4 doctoral students (Sakari Joenväärä, Niina Tohmola, Ville Parviainen and Hannu Peltoniemi). Lemström’s group: During the evaluation period we have finished one doctoral thesis (Antti Nykänen, 2007) and have now 9 doctoral students of whom four are at an advanced stage and should finish their theses during 2011-12 (Rainer Krebs, Raimo Tuuminen, Jukka Rintala and Mikko Keränen) and five at an earlier stage (Jussi Ropponen, Simo Syrjälä, Alireza Raissadati, Niina Malmström, and Sini Rintala) who should finish their theses by 2013. Hemminki’s group: eight PhD thesis have been finished in our group during the evaluation period (Tanja Hakkarainen, Gerd Bauerschmitz, Merja Särköja, Kilian Guse, Mari Raki, Mari Ropi, and Antti Nykänen)
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 1 MATERIAL (registration form)

Lotta Kangasniemi, Tuuli Ranki, Iulia Diaconu) and there is still one dissertation coming in December 2010 (Joao Dias). At the moment we have 11 doctoral students at different stages of their thesis. Lokki’s group: One PhD thesis has been finished during the evaluation period (Anil Pallikhe, 2008) and we have now 4 doctoral students (Riitta Paakkanen, Annika Wennerström, Marja Marchesani, Johanna Nokelainen) at different stages of their thesis. We have had approximately 26 students in National Graduate Schools and also been involved in the administration and development of these graduate schools. Risto Renkonen is currently heading one of them (GGS i.e. Glycoscience Graduate School).

Significance of the RC’s research and doctoral training for the University of Helsinki (MAX. 2200 characters with spaces):

ID-TM group is a newly established research community. We have a large variety of methodologies and knowledges and the groups produce high quality research. Combining our specialties in more intense collaboration will produce a strong research community in the field of inflammatory medicine and biology which has been nominated one of the main focuses in the future collaborative studies between the faculty of Medicine at the University of Helsinki and the Helsinki University Central Hospital. Strong national and international recognition creates possibilities to focus and increase doctoral training in the field of inflammatory diseases. This is needed at many branches of medicine, e.g. neurology, ophthalmology, oncology and cardiology.

Keywords: Inflammation, Diseases, Translational Medicine, Immunology, Genetics, Biomedicine, Health Sciences

6 QUALITY OF RC’S RESEARCH AND DOCTORAL TRAINING

Justified estimate of the quality of the RC’s research and doctoral training at national and international level during 2005-2010 (MAX. 2200 characters with spaces): During the evaluation period Renkonen’s group had 20, Lemström’s group had 23, Lokki’s group had 20 and Hemminki’s group had 66 peer reviewed publications. All the groups have internationally high quality publications. Many members of this RC are scientifically award-winning, they have organized courses and lectures at the University of Helsinki, they have administrative experience, they are reviewers of grants, dissertations and docentships, they have been as an opponent on dissertations, and as referees and editorial board members for international scientific journals.

Comments on how the RC’s scientific productivity and doctoral training should be evaluated (MAX. 2200 characters with spaces): Based on high-level of publications.
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<td>Faculty of Medicine, Molecular Cancer Biology Program &amp; Haartman Institute &amp; Transplantation Laboratory &amp; Finnish Institute for Molecular Medicine</td>
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<td>Hirvinen Mari</td>
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<td>41</td>
<td>Renkonen Risto</td>
<td>X Professor, Dean of the Faculty of Medicine</td>
<td>Faculty of Medicine, Haartman Institute, Transplantation Laboratory</td>
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<td>Joenväärä Sakari</td>
<td>Doctoral candidate</td>
<td>Faculty of Medicine, Haartman Institute, Transplantation Laboratory</td>
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<td>Parviainen Ville</td>
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<td>Faculty of Medicine, Haartman Institute, Transplantation Laboratory</td>
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<td>Tohmola Niina</td>
<td>Doctoral candidate</td>
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<td>45</td>
<td>Peltoniemi Hannu</td>
<td>Doctoral candidate</td>
<td>Faculty of Medicine, Haartman Institute, Transplantation Laboratory</td>
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</tbody>
</table>
Name of the RC’s responsible person: Lokki, Maisa
E-mail of the RC’s responsible person: maisa.lokki@helsinki.fi
Name and acronym of the participating RC: Inflammatory Diseases- towards Translational Medicine, ID-TM-group
The RC’s research represents the following key focus area of UH: 6. Kliininen tutkimus – Clinical research
Comments for selecting/not selecting the key focus area: This RC integrates both high level basic immunological and genetic research with clinically relevant animal models and finally clinical research. The combination allows the RC to quickly translate our findings in basic research to animal and clinical tests. All four groups of this RC have published both basic research and clinical papers during the evaluation period. The RC also consists of both full-time scientists and clinicians which facilitates translational research.

<table>
<thead>
<tr>
<th>1 FOCUS AND QUALITY OF RC’S RESEARCH (MAX. 8800 CHARACTERS WITH SPACES)</th>
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<tbody>
<tr>
<td><strong>Description of the RC’s research focus, the quality of the RC’s research (incl. key research questions and results) and the scientific significance of the RC’s research for the research field(s).</strong></td>
</tr>
<tr>
<td>The Faculty of Medicine, University of Helsinki, Finland, has defined its primary research foci together with the Helsinki University Central Hospital (HUS). One of these is infections and inflammation and thus our work aiming to understand the basic mechanisms of immunological diseases in human patients falls well into this scope. This RC combines several distinct approaches to investigate immunological diseases in humans and are listed below:</td>
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<tr>
<td><strong>Professor Renkonen’s group:</strong></td>
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<td>We apply a systems biology approach, including several large scale data collections, such as various microscopy techniques, transcriptomics, proteomics, interactomics pathway analysis etc. All these measurements and data analyses help us to understand the basic mechanisms of immunological diseases in human patients. Our novel observations in acute allergy and the new active role of epithelium in the pathogenesis of this disease have generated several publications and both national and international recognition: The Medix Prize 2010 for the best medical paper in Finland and European Academy of Allergy and Clinical Immunology (EAACI) selected this work as one of the few “Hot topic Lectures” at their annual meeting with 5000 participants (2009).</td>
</tr>
<tr>
<td><strong>Docent Lokki’s group:</strong></td>
</tr>
<tr>
<td>Inflammation has a central role also in the pathophysiology of acute coronary syndrome but the ultimate reasons for the inflammation remain unrevealed. The system that regulates inflammation, immunity and defensive mechanisms against microbes lies in big part in the Major Histocompatibility Complex (MHC) region and is associated with hundreds of diseases, including most if not all, autoimmune diseases like coronary heart disease, severe and recurrent upper respiratory infections and sarcoidosis. We have built tests to study copy number variation of MHC genes which are also in use for diagnostic purposes, and use CNV information together with single nucleotide polymorphism analyses. We have collected a cohort of 5000 patients’ samples for to study contemporary trends, risk factors, genetics and epigenetics for coronary heart disease. The material has been used as a replication cohort...</td>
</tr>
</tbody>
</table>
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 2 MATERIAL

in several large GWA-consortiums published in top biomedical journals (Nature Genetics, Nature, Lancet etc.).

Docent Lemström’s group:
Solid organ transplantation is the final treatment option in severe heart, lung, and kidney diseases when all other therapeutic approaches have failed. Although treatment of patients receiving solid organ transplants has markedly improved in the last years, chronic allograft rejection remains an important problem and cause of mortality and morbidity in these patients. We have developed animal models for investigating chronic allograft rejection in heart, lung, and kidney transplantation. Our work concentrates in uncovering new pathways that are biologically relevant in the development of chronic allograft rejection and targeting these pathways with specific drugs. Our work has been published in leading clinical journals of the respective fields (Circulation, American Journal of Respiratory and Critical Care Medicine etc). Our main aim has always been to translate our results of animal studies to the clinic. This is facilitated by the fact that our group consists of both full-time researchers as well as clinicians working in clinical transplantation units in the Helsinki University Central Hospital. Currently, we have an ongoing pilot clinical trial where simvastatin is administered to organ donors in order to limit early ischemia-reperfusion injury after transplantation.

Research Professor Hemminki’s group:
Oncolytic adenovirus based therapy represents a novel treatment approach for cancer refractory to conventional therapies. Adenoviruses are quite immunogenic and recent preclinical and clinical evidence suggests that anti-tumor efficacy is partially mediated by the immune response. However, the anti-viral immune reaction is not strong enough to result in tumor eradication. Therefore, to boost this effect, arming the virus with immunostimulatory molecules is an attractive prospect.

We have studied extensively the use of oncolytic adenoviruses in treatment of cancer. During the last couple of years, we have focused mainly on oncolytic adenoviruses expressing immunostimulatory molecules such as GM-CSF, CD40L and CTLA-4. We have published dozens of preclinical articles in international peer-reviewed scientific publication series. More importantly, we have been able to translate this approach to the clinic. In collaboration with University spin-off company Oncos Therapeutics over 230 cancer patients who have already undergone all routine modalities have been treated with oncolytic viruses, including four different GM-CSF expressing viruses and a CD40L expressing virus. Our group has been analyzing patient data yielding several clinical publications. In cooperation with Oncos Therapeutics, the first clinical trial with GM-CSF expressing virus CGTG-102 will start during 2011.

• Ways to strengthen the focus and improve the quality of the RC’s research.

Although all the different groups that form this RC share their interest in inflammation, the groups have a different background and have used somewhat different approaches to study inflammation. Forming this RC will allow us to share our technological expertise with one another providing us new tools and possibilities in our research.
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 2 MATERIAL

2 PRACTISES AND QUALITY OF DOCTORAL TRAINING (MAX. 8800 CHARACTERS WITH SPACES)

- How is doctoral training organised in the RC? Description of the RC’s principles for recruitment and selection of doctoral candidates, supervision of doctoral candidates, collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes, good practises and quality assurance in doctoral training, and assuring good career perspectives for the doctoral candidates/fresh doctorates.

All groups in this RC actively advertise and promote our RC during lectures which we give to students. Also, clinicians actively recruit medical students and resident fellows from the clinic. Our RC has doctoral students from several graduate schools. We also have a good reputation amongst the students and our own doctoral students form our most efficient and valuable tool for recruitment.

In addition, this RC benefits from the broad range of technology at our disposal as our research ranges from basic immunological research to microsurgery and to clinical research, and thus our RC has so far been able to recruit doctoral students to meet our needs. The selection process consists of an interview and a possible test period (i.e. pro gradu work) before commitment to a PhD program.

- supervision of doctoral candidates.

Professor Renkonen’s group has trained 12 MD/PhD thesis students during the last 20 years and three of them are within in the period 2005-2010.

Docent Lokki’s group has trained six MD/PhD students and one has graduated during the period 2005-2010.

Docent Lemström’s group has trained four MD/PhD students and one has graduated during the period 2005-2010.

Research Professor Hemminki’s group has trained 11 PhD or MD/PhD students during last nine years and nine of them graduated during the evaluation period 2005-2010.

- collaboration with faculties, departments/institutes, and potential graduate schools/doctoral programmes.

Professor Renkonen’s group: Out of the 12 theses, one was done in collaboration with TKK/Aalto University, seven are joint projects between the Faculty of Bioscience/Biochemistry, even though professor Renkonen is the sole supervisor of them and four are solely from the Faculty of Medicine. Professor Renkonen is one of the founders and the current director of the National Glycoscience Graduate School (GGS) sponsored by the Academy of Finland.

Docent Lokki’s group: Three PhD students are solely from the Faculty of Medicine, two are from both the Faculties of Bioscience and Medicine and one from the programme offered jointly by the University of Helsinki and Aalto University School of Science and Technology. One student belongs to the LERU doctoral programme (League of European Research Universities, joint PhD Program in biomedicine between University of Helsinki and Karolinska Institutet) and one student to the Helsinki Biomedical Graduate School.

Docent Lemström’s group: One post-doctoral fellow is arriving this year from the University of Freiburg. Our PhD students are from the Faculty of Medicine mainly due to the clinical nature of our work.

Research professor Hemminki’s group: Out of the nine doctoral students graduated during 2005-2010 four held a position in Helsinki Biomedical Graduate School (one in MD/PhD Program which is a joint program between the Biomedical Graduate School and the Faculty of Medicine) and one had position in
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 2 MATERIAL

Graduate School in Biotechnology and Molecular Biology. One of the theses was a joint project with Department of Biotechnology and Molecular Medicine, University of Kuopio and one with Department of Obstetrics and Gynecology and Department of Oncology, Helsinki University Central Hospital. All of the theses were done in collaboration with HUSLAB, Helsinki University Central Hospital and Molecular Cancer Research Program, Faculty of Medicine, University of Helsinki. Eight of them were also made in cooperation of Finnish Institute of Molecular Medicine.

At the moment we have 10 graduate students out of which one holds position in The National Graduate School of Clinical Investigation and one just received a position in Helsinki Graduate Program in Biotechnology and Molecular Biology.

- good practises and quality assurance in doctoral training.

The doctoral students have a thesis plan, and a follow-up group with yearly meetings. The students actively participate both at attending the lectures and also in arranging one or two annual meetings with some 120 participants. All students participate in both national and international courses and meetings and supervise younger students. We also support our students to lecture both in national educational symposiums as well as abroad.

- assuring good career perspectives for the doctoral candidates/fresh doctorates.

In December 2009 we arranged a symposium entitled “Carrier opportunities after PhD” with more 100 participants at the Haartman Institute. We also encourage and actively help the students to build wide contacts with different national research groups and to contact international groups for collaborations.

The new RC is sufficiently large to allow us to provide work for many postdoctoral fellows. For physician students, a PhD degree assists in work application and is of special assistance in applying for positions in those specialities where inflammation is central, such as clinical microbiology, oncology, transplantation medicine, infectious diseases etc.

- RC’s strengths and challenges related to the practises and quality of doctoral training, and the actions planned for their development.

We are good in training PhD students. We need still to put more emphasis on the broad teaching of techniques both in the wet-lab as well as in silico approaches so that the new generation can readily tackle the system level problems of clinically relevant medical problems. Our strength is to have students with different basic knowledge like genetics, biochemistry, clinical medicine, bioinformatics and statistics. The new RC will enable us to hold joint training sessions where we can teach the students a broad range of methodology.

3 SOCIETAL IMPACT OF RESEARCH AND DOCTORAL TRAINING (MAX. 4400 CHARACTERS WITH SPACES)

- Description of how the RC interacts with and contributes to the society (collaboration with public, private and/or 3rd sector).

As previously pointed out the University of Helsinki and Helsinki University Central hospital had defined the focus areas, which have a significant impact in the society. As infections and inflammation are one of these foci and we have a good tradition in carrying out research within this field we can strongly participate into the University of Helsinki’s efforts on the third sector in this area.

We not only provide new MD/PhD but also specialists in the field of clinical microbiology who all will serve jointly at the University of Helsinki and Helsinki University Central Hospital to diagnose and treat patients in the field of infections and inflammation. Furthermore, many of our researchers and doctoral students are working also in clinical positions. The importance of clinician-researchers has been lately recognized to be central for transferring basic research findings into clinical use and is a clear advantage
of this RC. All four research groups in this RC already perform both basic as well as clinical research allowing quick translation of our basic research findings into the clinical setting.

In addition to the research work related to infectious and inflammatory diseases, we are running a diagnostic laboratory offering gene tests to study and evaluate patients' susceptibility to infectious, inflammatory and autoimmune diseases. As an internationally accredited laboratory (European Federation for Immunogenetics) we have developed several gene tests and also use high quality commercial tests to analyse MHC (major histocompatibility complex)-related genes.

- **Ways to strengthen the societal impact of the RC’s research and doctoral training.**

We still need to put more effort on the most common inflammatory diseases and try to find novel diagnostic and treatment modalities for them. Integration of the four different research groups will both strengthen our capability for research as well as our ability to train doctoral students when we pool our knowledge into one larger unit.

- **Description of the RC’s research collaborations and joint doctoral training activities and how the RC has promoted researcher mobility.**

Our RC has research collaborations with several clinics of the Helsinki University Hospital such as divisions of infectious diseases, cardiothoracic surgery, pulmology, cardiology, ophthalmology, and neurology and collaborates with research groups in Biomedicum Helsinki and National Institute for Health and Welfare. Docent Lokki is a member of the management committee of COST action BM0803 "a European network of the HLA diversity for histocompatibility, clinical transplantation, epidemiology and population genetics (HLA-NET)" which also organizes meetings, short-term scientific visits and international training schools for students.

- **RC’s strengths and challenges related to research collaboration and researcher mobility, and the actions planned for their development.**

This RC is nationally very strong in the field of immunological research. However, our aim is to increase international exchange of doctoral students and postdoctoral fellows and several of our researchers have applied for research fellowships abroad. We already have a wide base of collaborators both nationally and internationally but we continuously aspire to increase this collaboration. We actively encourage international exchange of researchers and doctoral students and will receive a research fellow from the University of Freiburg in 2011 and one of our researchers is going to the University of Toronto in 2012. This international exchange will open up possibilities for further researcher mobility in the future.

- **Description of the operational conditions in the RC’s research environment (e.g. research infrastructure, balance between research and teaching duties).**

Research infrastructure is currently suitable with updated laboratory facilities and a fully operational unit for animal studies. We participate in the running of Meilahti Mass spectrometry Core unit and will update our Q-TOF instrument in January 2012 with funds already allocated to us from Biocentrum Finland and the University of Helsinki (500 000 €).
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC STAGE 2 MATERIAL

Professor Renkonen is the Dean of the Medical Faculty 2010-2013 and thus has somewhat more limited resources for research during the coming years. However, Professor Renkonen’s group still has 4 PhD students who all are expected to complete their studies with the next two years. Docent Lokki is in a full-time position. Many of our clinician-researchers have varying duties in the clinic but have been awarded personal grants to perform research full-time for several months a year. Docent Lemström has been elected as a Professor of Transplantation Medicine and this position will allow more full-time research than before. Research Professor Akseli Hemminki holds K. Albin Johansson Research Professorship (Finnish Cancer Institute) which enables full-time research free from clinical duties.

All group leaders and several other researchers participate actively in teaching on the basic courses with the Faculties of Medicine and Biosciences as well as at the Aalto University.

RC’s strengths and challenges related to operational conditions, and the actions planned for their development.

There are no severe challenges related to the operational conditions of the RC. Our financial situation is solid and we have the necessary facilities at our disposal. Professor Renkonen has limited time resources as long as he continues in the position of Dean at the Faculty of Medicine (2010-2013) but Docent Lokki and Professor Hemminki are full-time scientists and Docent Lemström will have more research time with his appointment as a Research Professor.

6 LEADERSHIP AND MANAGEMENT IN THE RESEARCHER COMMUNITY (MAX. 4400 CHARACTERS WITH SPACES)

- Description of the execution and processes of leadership in the RC, how the management-related responsibilities and roles are distributed in the RC and how the leadership- and management-related processes support high quality research, collaboration between principal investigators and other researchers in the RC, the RC’s research focus and strengthening of the RC’s know-how.

The Faculty of Medicine, University of Helsinki, Finland, has defined its primary research focuses together with the University Central Hospital (HUS). One of these is infections and inflammations and thus our work aiming to understand the basic mechanisms of immunological diseases in human patients falls well into this scope.

The RC has four principal investigators heading their research groups and the groups have organized their own personnel and working managements. The principal investigators will hold regular meetings to discuss areas of cooperation. The groups of this RC will actively support cooperation between researchers of the different groups and common training sessions and seminars will be held on a regular basis. The cooperation enables more efficient use of resources and laboratory apparel and will thereby reduce research costs. Our aim is to reduce the threshold between the different groups to a minimum to allow spread of information and easy consultation and strengthening of the know-how in our RC.

- RC’s strengths and challenges related to leadership and management, and the actions planned for developing the processes.

Our RC has four principal investigators that have known each other for years and have already cooperated with one another before the forming of this RC. This earlier cooperation sets a fruitful basis for closer cooperation in the following years aiming at co-application for new grants and joint doctoral students between the different groups.
7 External competitive funding of the RC

- List of the RCs external competitive funding, where:
  - the funding decisions have been made during 1.1.2005-31.12.2010, and
  - the administrator of the funding is/has been the University of Helsinki

- Academy of Finland (AF) - total amount of funding (in euros) AF has decided to allocate to the RC members during 1.1.2005-31.12.2010: 1330000

- Finnish Funding Agency for Technology and Innovation (TEKES) - total amount of funding (in euros) TEKES has decided to allocate to the RC members during 1.1.2005-31.12.2010:

- European Union (EU) - total amount of funding (in euros) EU has decided to allocate to the RC members during 1.1.2005-31.12.2010: 690000

- European Research Council (ERC) - total amount of funding (in euros) ERC has decided to allocate to the RC members during 1.1.2005-31.12.2010: 1620000

- International and national foundations - names of international and national foundations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
  - names of the foundations: Cancer Organizations, Sigrid Juselius Foundation, Schering Research Foundation and Finnish Oncology Association, Sigrid Juselius Foundation, Foundation for Cardiovascular Research, Nummela Hospital Research Society
  - total amount of funding (in euros) from the above-mentioned foundations: 1640000

- Other international funding - names of other international funding organizations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
  - names of the funding organizations: American Society of Clinical Oncology, Wellcome Trust Sanger Institute, Roche Organ Transplantation Research Foundation
  - total amount of funding (in euros) from the above-mentioned funding organizations: 290000

- Other national funding (incl. EVO funding and Ministry of Education and Culture funded doctoral programme positions) - names of other national funding organizations which have decided to allocate funding to the RC members during 1.1.2005-31.12.2010, and the amount of their funding (in euros).
  - names of the funding organizations: EVO and University of Helsinki Funds
  - total amount of funding (in euros) from the above-mentioned funding organizations: 2100000

8 RC’s Strategic Action Plan for 2011–2013 (max. 4400 characters with spaces)

- Description of the RC’s future perspectives in respect to research and doctoral training.
  All four groups have a strong PhD program. Most of the current students will finalize their PhD during the time period of 2011-2013 in their own respective groups. New students will be recruited to start new projects. Our strategy is to actively support group-to-group cooperation in training new doctoral students as this will serve to deepen and strengthen our RC.
SHORT DESCRIPTION OF HOW THE RC MEMBERS HAVE CONTRIBUTED TO THE COMPILATION OF THE STAGE 2 MATERIALS (MAX. 1100 CHARACTERS WITH SPACES).

All principal investigators equally contributed to the compilation of this material.
1 Analysis of publications

- Associated person is one of Marja-Liisa Lokki, Maisa.Lokki@helsinki.fi, Anil Palikhe, Anil.Palikhe@helsinki.fi, Riitta Paakkanen, riitta.paakkanen@helsinki.fi, Marja Marchesani, marja.marchesani@helsinki.fi, Juhha.Pekka Sinisalo, Juhha.Pekka.Sinisalo@helsinki.fi, Petri Koskinen, Petri.Koskinen@helsinki.fi, Antti Nykanen, Antti.Nykanen@helsinki.fi, Jussi Tikkanen, Jussi.Tikkanen@helsinki.fi, Minna Johanna Savikko, Johanna.Savikko@helsinki.fi, Petri Koskinen, Petri.Koskinen@helsinki.fi, Rainer Krebs, Rainer.Krebs@helsinki.fi, Mikko Antti Ilmari Keränen, mikko.a.keranen@helsinki.fi, Jukka Martti J Rintala, jukka.m.jrintala@helsinki.fi, Sirri Rintala, sirri.rintala@helsinki.fi, Aksel Bååt Hemminki, aksel.hemminki@helsinki.fi, Anna-Maja Kärnefors, Anna-Maja.Karnefors@helsinki.fi, Sari Pesonen, sari.pesonen@helsinki.fi, Vincenzo Cerulli, vincenzo.cerulli@helsinki.fi, Sophie Esculier, sophie.esculier@helsinki.fi, Lotta Kangasmaa, lotta.kangasmaa@helsinki.fi, Tuuli Rantala, tuuli.rantala@helsinki.fi, Lotta Kangasmaa, lotta.kangasmaa@helsinki.fi, Lotta Kangasmaa, lotta.kangasmaa@helsinki.fi.

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<td>A3 Contribution to book/other compilations (referred)</td>
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2 Listing of publications

A1 Refered journal article

2005


INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI

RC-SPECIFIC TUHAT COMPILATIONS OF PUBLICATIONS DATA 2005-2010

ID-TM/Lokki
International Evaluation of Research and Doctoral Training at the University of Helsinki

ID-TM/Lokki

2006


Hakkarainen, T, Hemminki, A, Curiel, DT, Wahlfors, J 2006, 'A conditionally replicative adenovirus that codes for a TK-GFP fusion protein (Ad5 Delta 24TK-GFP) for evaluation of the potency of oncolytic virotherapy combined with molecular chemotherapy', International Journal of Molecular Medicine, vol 18, no. 4, pp. 751-759.


2009


Rennkonen, J, Mattila, P, Lehti, S, Mäkinen, J, Sormunan, R, Tervo, T, Paavanen, T, Rennkonen, R 2009, 'Birch pollen allergen Bet v 1 binds to and is transported through conjunctival epithelium in allergic patients', *Allergy : European Journal of Allergy and Clinical Immunology*, vol 64, no. 6, pp. 868-875.


**A2 Review in scientific journal**

*2005*


*2006*


*2007*


*2008*


*2009*


*2010*


**A3 Contribution to book/other compilations (refereed)**

*2005*


2008


A4 Article in conference publication (refereed)

2008

Keränen, MAJ, Tuuminen, RM, Nakano, AI, Tavast, E, Koskinen, PK, Johnson, RS, Lemstrom, KB 2008, 'Constantly stable HIF-1alpha in myeloid cells prevents acute rejection in rat cardiac allografts', Journal of Heart and Lung Transplantation 27 ELSEVIER INC.


2009


B1 Unrefereed journal article

2005


2006


2009


2010


B3 Unrefereed article in conference proceedings

2008


D1 Article in professional journal

2010


E1 Popular article, newspaper article

2010

**INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING AT THE UNIVERSITY OF HELSINKI**

**RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010**

ID-TM/Lokki

### 1 Analysis of activities 2005-2010

Associated person is one of Marja-Liisa Lokki, Maisa.Lokki@helsinki.fi, Anil Palikhe, Anil.Palikhe@helsinki.fi, Riitta Paakkanen, riitta.paakkanen@helsinki.fi, Marja Marchesani, marja.marchesani@helsinki.fi, Juha-Pekka Sinisalo, Karl Birger Lemström, Karl.Lemstrom@helsinki.fi, Petri Koskinen, Petri.Koskinen@helsinki.fi, Antti Nykänen, antti.nykainen@uni.helsinki.fi, Merja-Anna Kajari, merja.anna.kajari@uni.helsinki.fi, Maarit Mattila, Maarit.Mattila@uni.helsinki.fi, Ari Juhola, ari.juhola@uni.helsinki.fi, Jukka Martikainen, jukka.martikainen@uni.helsinki.fi, Jarkko Ristic, jarkko.ristic@uni.helsinki.fi, Sakari Joenväärä, sakari.joenvaara@uni.helsinki.fi, Ville Paavola, ville.paavola@uni.helsinki.fi, Risto Renkonen, Risto.Renkonen@uni.helsinki.fi, Ville Parviainen, ville.parviainen@uni.helsinki.fi.

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<td>Prizes and awards</td>
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<td>Participation in radio programme</td>
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<td>Participation in TV programme</td>
<td>5</td>
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<tr>
<td>Participation in interview for web based media</td>
<td>1</td>
</tr>
</tbody>
</table>
2 Listing of activities 2005-2010

**Supervisor or co-supervisor of doctoral thesis**

Akseli Eetu Hemminki, akseli.hemminki@helsinki.fi

Supervision of PhD thesis / Tarja Hakkarainen, Akseli Eetu Hemminki, 2001 → 2005
Supervision of PhD thesis / Lotta Kanganiemi, Akseli Eetu Hemminki, 2003 → 2009
Supervision of PhD thesis / Tuuli Rantik, Akseli Eetu Hemminki, 2003 → 2010
Supervision of PhD thesis / Kilian Duse, Akseli Eetu Hemminki, 2008 → 2009
Supervision of PhD thesis / Iulia Diaconu, Akseli Eetu Hemminki, 2010
Supervision of PhD thesis / João Dias, Akseli Eetu Hemminki, 2010

Sari Pesonen, sari.pesonen@helsinki.fi

Supervision of PhD thesis / Iulia Diaconu, Sari Pesonen, 2006 → 2010
Supervision of PhD thesis / João Dias, Akseli Eetu Hemminki, 2010

**Prizes and awards**

Akseli Eetu Hemminki, akseli.hemminki@helsinki.fi

Sigrid Juselius Young Investigator Award, Akseli Eetu Hemminki, 2005
Research Award from Schering Research Found. and Finnish Oncol. Assc, Akseli Eetu Hemminki, 2006
The Outstanding Young Person Award by Junior Chamber Intl Finland, Akseli Eetu Hemminki, 2006
The Outstanding Young Person of the World award by Junior Chamber Intl., Akseli Eetu Hemminki, 2006
Outstanding Young Investigator Award, American Society of Gene Therapy, Akseli Eetu Hemminki, 2007
Young Investigator Award, European Society of Cell and Gene Therapy, Akseli Eetu Hemminki, 2007
American Society of Clinical Oncology Career Development Award, Akseli Eetu Hemminki, 2010

Risto Renkonen, Risto.Renkonen@helsinki.fi

*Männin mitali, Risto Renkonen, 12.08.2010, Finland
Duodecim Lauri Saxen mitali 2010, Risto Renkonen, 12.08.2010, Finland
Medix palkinto 2010, Risto Renkonen, 06.09.2010, Finland

**Editor of research journal**

Karl Birger Lemström, Karl.Lemstrom@helsinki.fi

Arteriosclerosis, Thrombosis and Vascular Biology, Karl Birger Lemström, 01.01.2006 → 31.12.2011
Circulation, Karl Birger Lemström, 01.01.2006 → 31.12.2011
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RC-SPECIFIC TUHAT COMPILATIONS OF OTHER SCIENTIFIC ACTIVITIES 2005-2010

ID-TM/Lukki

Journal of Heart and Lung Transplantation, Karl Birger Lammström, 01.01.2006 → 31.12.2011
Transplantation, Karl Birger Lammström, 01.01.2006 → 31.12.2011
Akseli Eetu Hemminki, akseli.hemminki@helsinki.fi
dozens, Akseli Eetu Hemminki, 08.02.2007 → 31.12.2011, Finland

Risto Renkonen, Risto.Renkonen@helsinki.fi

Annals of Medicine, Risto Renkonen, 2000 → 2011
Clinical Laboratory, Risto Renkonen, 2000 → 2011
Glycoconjugate Journal, Risto Renkonen, 2000 → 2011
Journal of Clinical Investigation, Risto Renkonen, 2000 → 2011
Annals of Medicine, Risto Renkonen, 01.01.2005 → 31.12.2005, Finland
Annals of Medicine, Risto Renkonen, 01.01.2005 → 31.12.2006, Finland
Clinical Laboratory, Risto Renkonen, 01.01.2005 → 31.12.2005, Germany
Clinical Laboratory, Risto Renkonen, 01.01.2005 → 31.12.2005, Germany
Glycoconjugate Journal, Risto Renkonen, 01.01.2005 → 31.12.2005, United States
Glycoconjugate Journal, Risto Renkonen, 01.01.2005 → 31.12.2005, United States
Annals of Medicine, Risto Renkonen, 01.01.2006 → 31.12.2006, Finland
Annals of Medicine, Risto Renkonen, 01.01.2006 → 31.12.2006, Finland
Clinical Laboratory, Risto Renkonen, 01.01.2006 → 31.12.2006, Germany
Clinical Laboratory, Risto Renkonen, 01.01.2006 → 31.12.2006, Germany
Duodecim, Risto Renkonen, 01.01.2006 → 31.12.2006, Finland
Duodecim, Risto Renkonen, 01.01.2006 → 31.12.2006, Finland
FEBS Journal, Risto Renkonen, 01.01.2006 → 31.12.2006
FEBS Journal, Risto Renkonen, 01.01.2006 → 31.12.2006
Glycobiology, Risto Renkonen, 01.01.2006 → 31.12.2006
Glycobiology, Risto Renkonen, 01.01.2006 → 31.12.2006
Glycoconjugate Journal, Risto Renkonen, 01.01.2006 → 31.12.2006, United States
Glycoconjugate Journal, Risto Renkonen, 01.01.2006 → 31.12.2006, United States

Peer review of manuscripts
Risto Renkonen, Risto.Renkonen@helsinki.fi

American Journal of Pathology, Risto Renkonen, 1992 → 2011
EMBO Journal, Risto Renkonen, 1992 → 2011
European Journal of Immunology, Risto Renkonen, 1993 → 2011
Journal of Immunology, Risto Renkonen, 1993 → 2011
Journal of Clinical Investigation, Risto Renkonen, 1994 → 2011
Glycobiology, Risto Renkonen, 1996 → 2011
Allergy, Risto Renkonen, 1997 → 2011
Membership or other role in research network

Risto Renkonen, Risto.Renkonen@helsinki.fi
Consortium for Functional Gyneco-Endocrinology, Risto Renkonen, 2001 → 2011, United States
Glycoscience Graduate School (GGS), Risto Renkonen, 2006 → 2011, Finland

Membership or other role in national/international committee, council, board

Akseli Eetu Hemminki, akseli.hemminki@helsinki.fi
more than 10, Akseli Eetu Hemminki, 08.02.2007 → 31.12.2011, Finland

Risto Renkonen, Risto.Renkonen@helsinki.fi
Suomen Glykoopsidejo, Risto Renkonen, 01.01.2005 → 31.12.2005, Finland
Suomen Glykoopsidejo, Risto Renkonen, 01.01.2005 → 31.12.2005, Finland
Suomen immunologia yhdistys, Risto Renkonen, 01.01.2005 → 31.12.2005, Finland
Suomen immunologia yhdistys, Risto Renkonen, 01.01.2005 → 31.12.2005, Finland

Membership or other role in public Finnish or international organization

Risto Renkonen, Risto.Renkonen@helsinki.fi
HUS, EVO-tutkimustoimikunta, Risto Renkonen, 01.01.2003 → ...
HUSLAB johtoryhmä, Risto Renkonen, 01.01.2009 → ...
Tutkimuksen ja kehityksen varadektori, Risto Renkonen, 2008, Finland
Yliopistotutkimusmielikunta (Y-Y ja HUS), Risto Renkonen, 30.06.2009 → ...
HUSLAB uudisasrakennusmielikunta, Risto Renkonen, 01.01.2010 → ...
HY, FIMM, Risto Renkonen, 2010 → ...
HY, Kliinikon johtokunta, Risto Renkonen, 2010 → ...
HY, Neurotieteen tutkimuskeskus, jaantutkimus, Risto Renkonen, 01.01.2010 → ...
HY, Tekninen Kirjastotutkimuskeskus, Risto Renkonen, 2010 → ...
HY, Tita- ja tieteistökeskus, Risto Renkonen, 2010 → ..., Finland
Hevringen yliopiston kollegion jäsen, Risto Renkonen, 02.01.2010 → ..., Finland
Lääkärinkoulutuskeskuksen alueellinen neuvojamielikunta, Risto Renkonen, 2010 → ...
Mielahden Bioparenin johtoryhmä, Risto Renkonen, 2010 → ...

Membership or other role of body in private company/organisation

Petri Koskinen, Petri.Koskinen@helsinki.fi
Risto Renkonen, Risto.Renkonen@helsinki.fi
HUS ohjausryhmä, Risto Renkonen, 2009 → ...
Duodecim, Risto Renkonen, 2010 → 2011
Sigrid Juseliusen Säätiö, Risto Renkonen, 01.06.2010 → ...

Participation in radio programme

Risto Renkonen, Risto.Renkonen@helsinki.fi
haastattelu radio-ohjelma v. 2005-2010, Risto Renkonen, 2005 → 2010

Participation in TV programme

Akseli Eetu Hemminki, akseli.hemminki@helsinki.fi
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ID-TM/Lokki

Aamu-tv, Akseli Eetu Hemminki, 25.01.2010
Professional appearance on TV, Akseli Eetu Hemminki, 25.01.2010, Finland
Risto Renkonen, Risto.Renkonen@helsinki.fi
TV-HAASTATTELU, Risto Renkonen, 2005 → 2010
TV-ohjelma MTV3silta, Risto Renkonen, 02.06.2006 → 31.12.2011, Finland
TV-ohjelma MTV3silta, Risto Renkonen, 04.07.2006 → 31.12.2011, Finland

Participation in interview for web based media
Risto Renkonen, Risto.Renkonen@helsinki.fi
Havastelu verkkomediaassa, Risto Renkonen, 2005 → 2010
Research Group: Lokki ML

**Basic statistics**

- Number of publications (P) 161
- Number of citations (TCS) 1,175
- Number of citations per publication (MCS) 7.36
- Percentage of uncited publications 26%
- Field-normalized number of citations per publication (MNCS) 1.10
- Field-normalized average journal impact (MNJS) 1.53
- Field-normalized proportion highly cited publications (top 10%) .93
- Internal coverage .94

**Trend analyses**

**Collaboration**

Performance (MNCS) by collaboration type
INTERNATIONAL EVALUATION OF RESEARCH AND DOCTORAL TRAINING
AT THE UNIVERSITY OF HELSINKI

by CWTS, Leiden University, the Netherlands

Research profile

![Research profile chart]

Threshold: $P \geq 6$