

**AVEDAS**  
Innovation Management



**Lösungen** für das Management  
von **Forschungsinformationen**





# Forschungsinformationsmanagement in der Praxis

Das Beispiel des  
Leiden University Medical Centers  
(LUMC)

Jan C. Maier – AVEDAS AG  
[www.avedas.de](http://www.avedas.de)



1. Profil des Leiden University Medical Centers (LUMC)
2. Ausgangssituation und Fragestellungen
3. Forschungsinformationssystem als Lösung
4. Erfahrungen und Ausblick



- Eines von von 8 UMCs in den Niederlanden.
- Gegründet 1997 durch Zusammenschluss des Universitätskrankenhauses und der medizinischen Fakultät.
- Budget 2008: 591m€
- 7.000 Mitarbeiter, 1.500 Wissenschaftler.
- 1.500+ Publikationen pro Jahr in WoS





- LUMC befindet sich im zunehmenden Wettbewerb um Forschungsressourcen, Exzellenz und Talente
- Sich verändernde Anforderungen an die Darstellung und Evaluierung der Forschungsaktivitäten und deren Ergebnisse
  - Drittmittelanträge, Berichte an Forschungsfinanziers, Nationale Forschungsevaluierungen
  - Ad hoc-Analysen und Entscheidungsunterstützung
- Manuelle und fallweise Datensammlung führt zu
  - Hohen und wiederkehrenden Kosten
  - Schlechter Datenqualität
  - Mangelnden Auswertungen
- Ein systematischer Ansatz wurde benötigt, um Forschungsinformationen kontinuierlich zu sammeln und zu nutzen

Kontinuierliche Verfolgung der laufenden Forschungsaktivitäten  
Durchführung von regelmäßigen Forschungsevaluierungen mit den  
Dimensionen: Qualität, Produktivität, Relevanz und Dynamik



Welche **Publikationen** hat das **LUMC**, und zusammen **mit wem?**

Welche **Kompetenzen** haben wir, und in welchen **Forschungsbereichen** liegen unsere **Stärken?**

In welche **Netzwerke** gehen wir ein, und welche **Effekte** haben sie auf unsere **Forschungsergebnisse** über die **Zeit?**

Welche unserer Forscher sind die weltweit **führend** in einem gewissen **Forschungsbereich?**



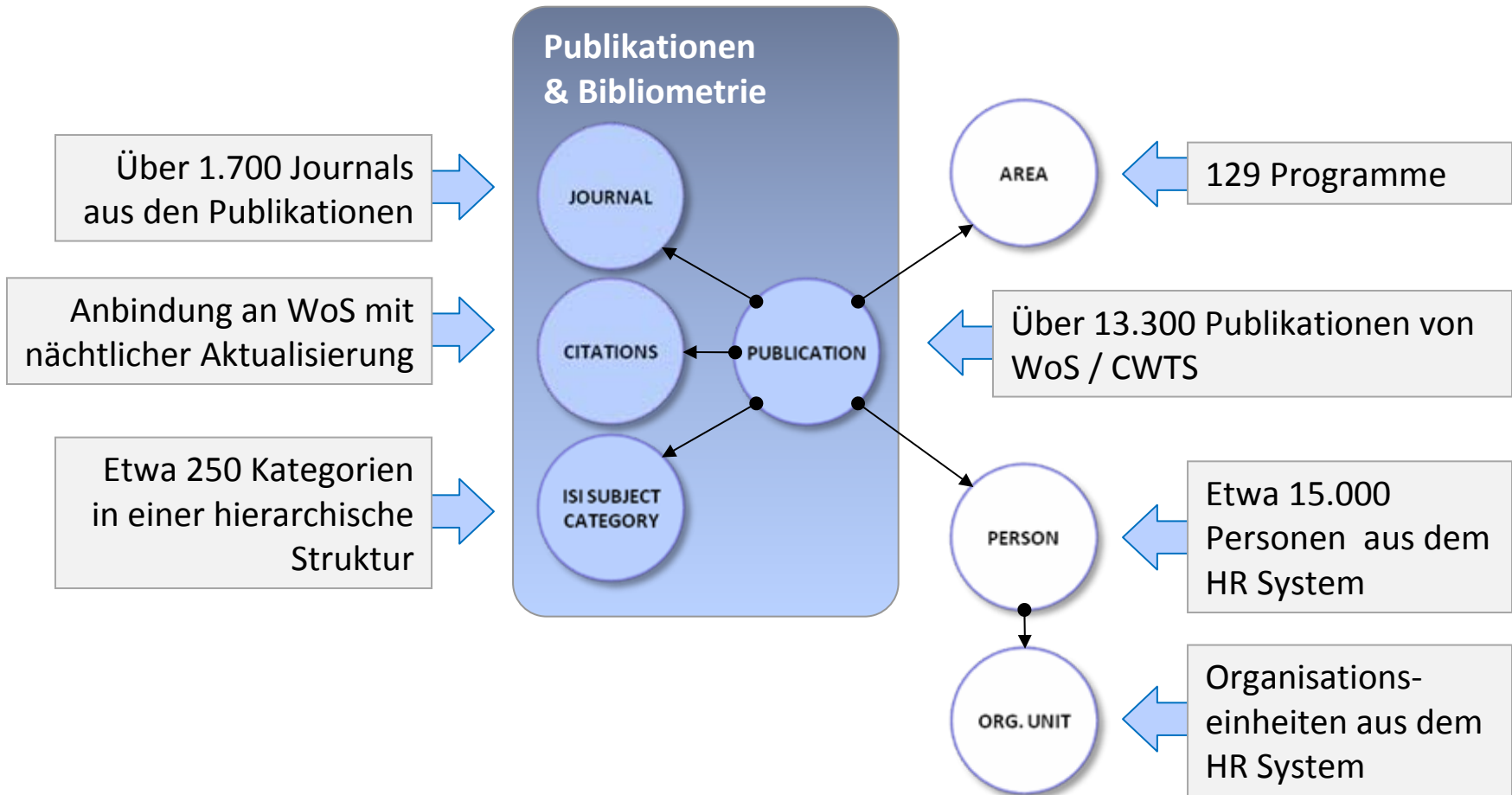
Es bedarf einer kontinuierlichen, detaillierten und qualitätsgesicherten Selbstsicht auf die eigenen Kompetenzen und Aktivitäten ...

... basierend auf einer Datenbasis zu laufenden und abgeschlossenen Projekten, Publikationen, sowie weiteren Forschungsinformationen.

- Maximale Wiederverwendung bestehender interner und externer Informationsquellen um die Arbeitsbelastung für den einzelnen so gering wie möglich zu halten.
- Kontinuierliche Qualitätssicherung der Daten durch den Einsatz automatisierter Prozesse.
- Vielfältige Möglichkeiten Daten zum Zwecke der Forschungsevaluierung zu analysieren.

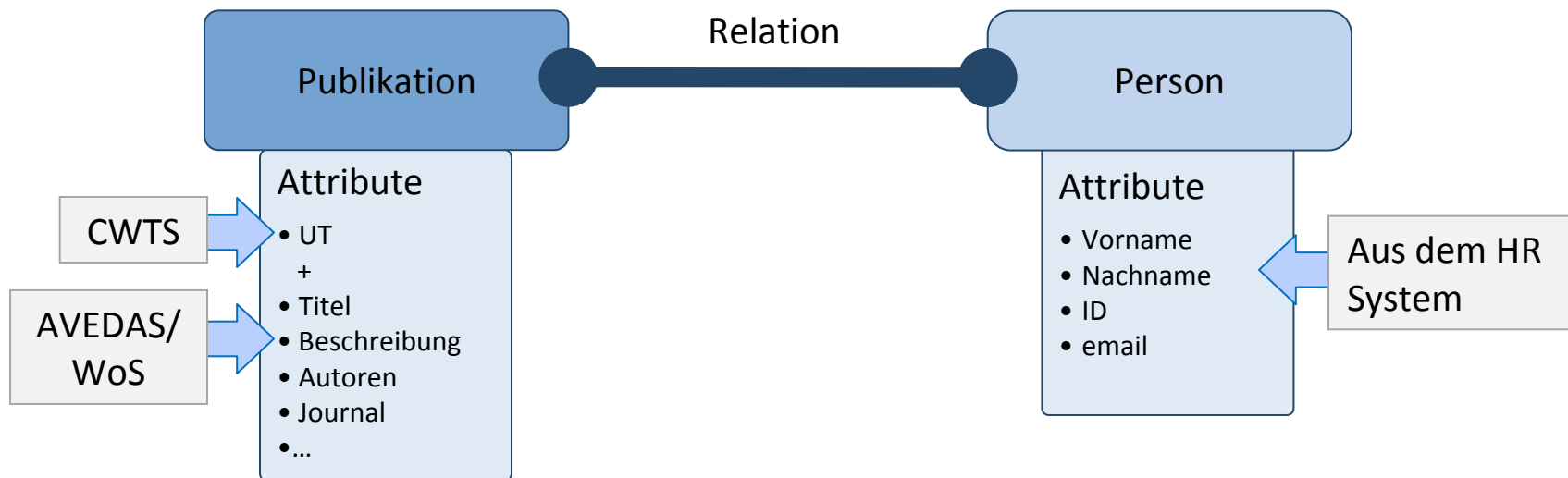


# Einbindung von internen und externen Datenquellen



**Gesamtprozessdauer vom Standarddatenmodell bis zum individuell angepassten und vorbefüllten Informationssystem für LUMC: 12 Wochen**





## Resolve relations

Resolve authors ▾

Advanced configuration

Relation between Publication and Person PUBL\_has\_PERS ▾

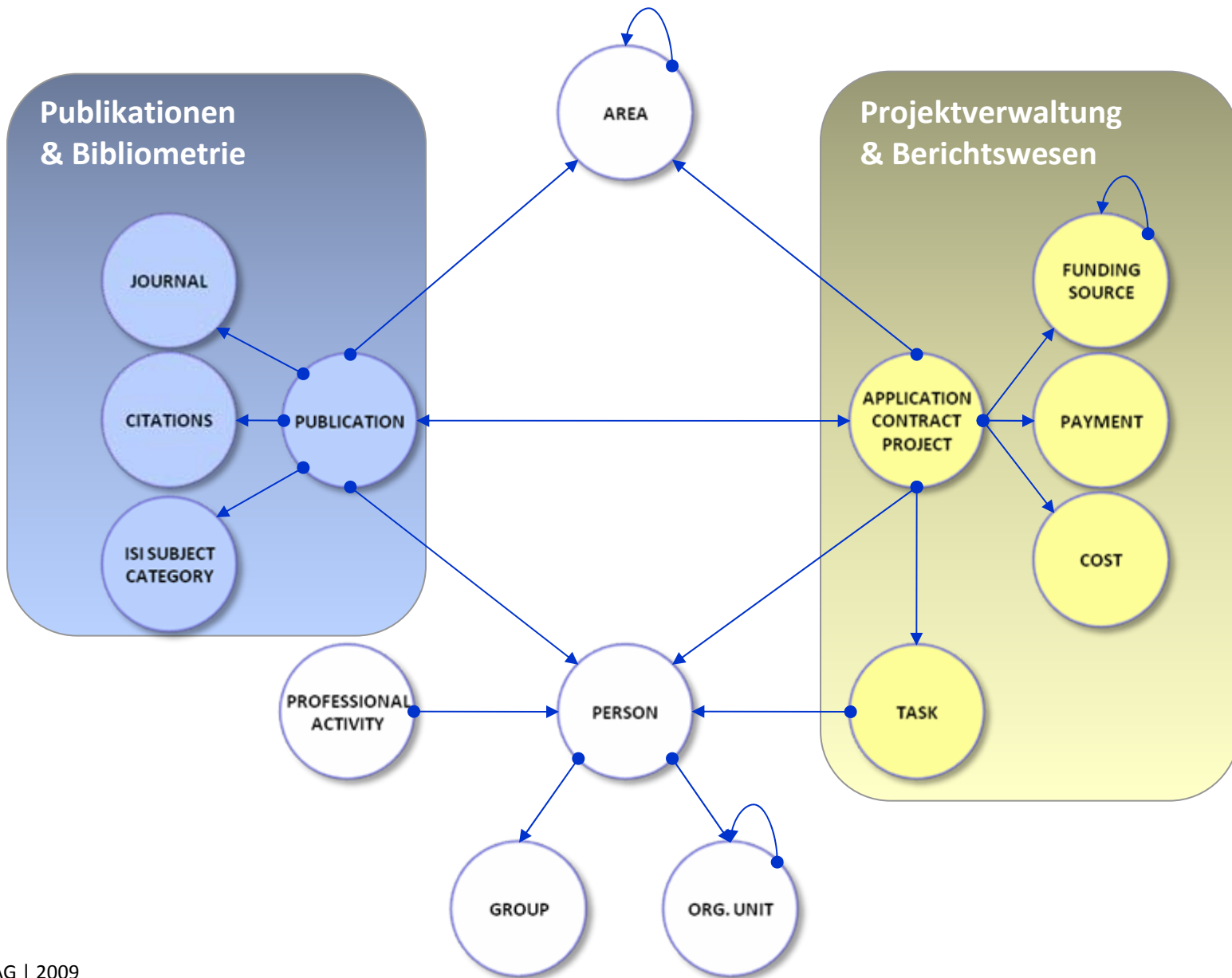
First name attribute First name ▾

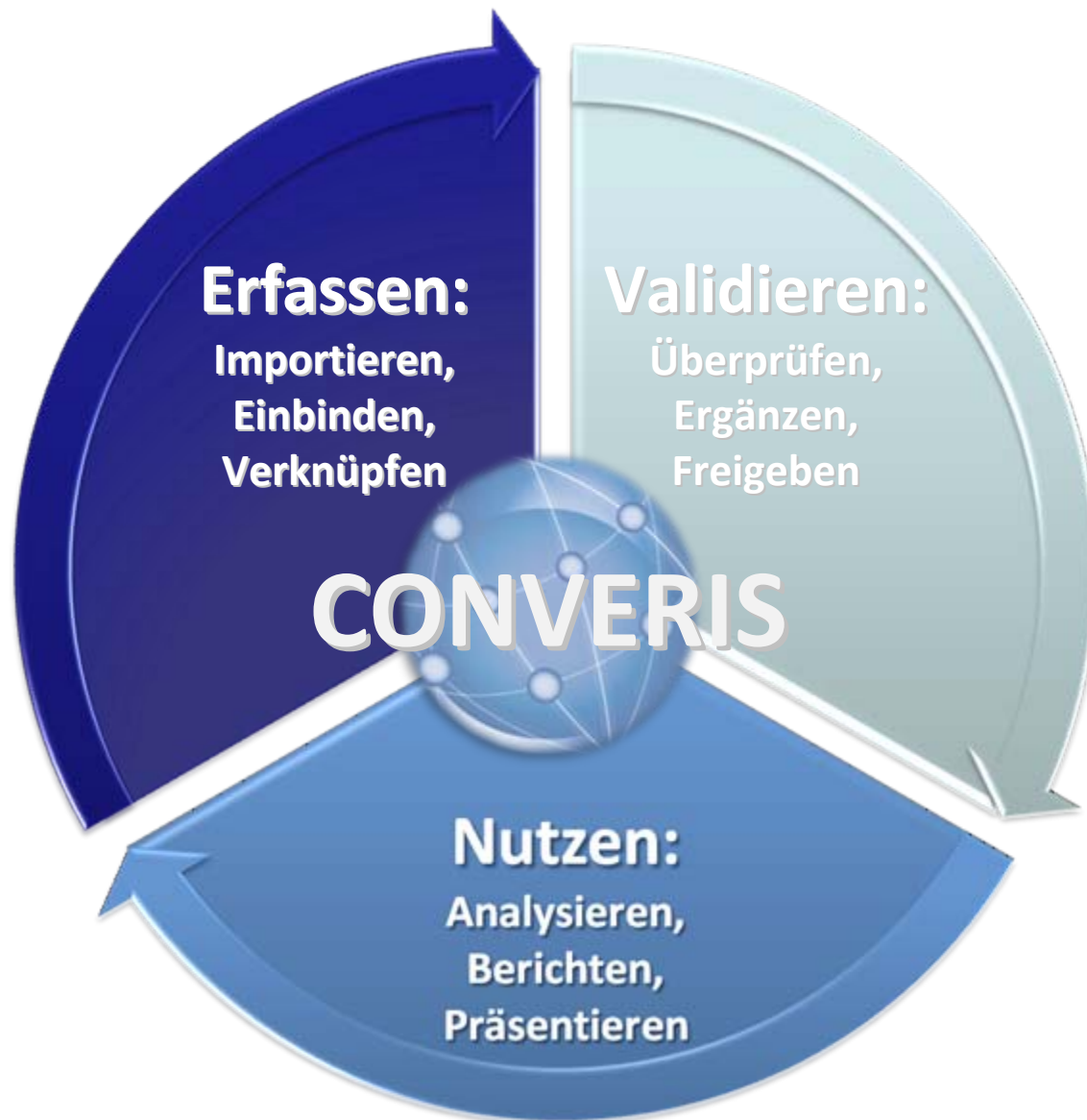
Last name attribute Last name ▾

Authors attribute Authors ▾

Name matcher SimpleNameMatcher ▾

Resolve relations







## My pages

Overview

Statistics

Actions

Help



**Prof. Leon Mullenders**  
t.fuessler@googlemail.com



My Profile in the public web »  
Logged in as: Researcher  
Last login: 2009-09-25 09:09

### Welcome to Converis, Leon Mullenders

This demo system has been configured for you to get a first glimpse of the possibilities with CONVERIS. The boxes below show the user's latest information based on the user's role and entry point in the system. By clicking on "Show all" or by using the left menu, you get an overview of all items that have been registered for the selected type of information.



#### PUBLICATIONS

Add new »  
Import from source »  
Import from file »  
List all (51) »



#### PROJECTS

Add new »  
List all (1) »



#### APPLICATIONS

Add new »  
List all (1) »



#### CONTRACTS

List all (2) »



#### ACTIVITIES

Add new »  
List all (7) »



#### TASKS

Add new »  
List all (1) »

#### MESSAGES

Latest innovation report released	Low	09/09/2009
Please register your publications for the annual report	High	20/08/2009
Your publications from 2008 have been validated	Low	11/08/2009


#### THINGS TO DO

Publications under registration »  
Projects running »  
Tasks planned »

#### PREFERRED ACTIONS

CV Generator »  
Publication Search »  
Publication report »  
Search profiles »




Publication search
CONVERIS 3.7 | MY PAGES | PUBLIC WEB | LOGOUT

My pages » Actions » Publication search

- 1. Select type of search
- 2. Search for publications
- 3. Confirm and import
- 4. Import overview

**HELP** »

Import publications for: **Mullenders, Leon (LUMC)**

**SOURCE**    Web of Science    PubMed

**SEARCH**    in field    
 in field

**FILTER**   From year  to    Sort by

**Search results (73)**

«« 1 2 3 4 5 +1 +5 »»

- Publication data**
- Ionizing radiation-induced instant pairing of heterochromatin of homologous chromosomes in human cells**  
 Abdel-Halim HI, Imam SA, Badr FM, Natarajan AT, Mullenders LHF, Boei JJWA  
 CYTOGENETIC AND GENOME RESEARCH: 193-199, , ID:000222519900030  
 Affiliation: Leiden Univ, Suez Canal Univ
  - Mitomycin C-induced pairing of heterochromatin reflects initiation of DNA repair and chromatid exchange formation**  
 Abdel-Halim HI, Natarajan AT, Mullenders LHF, Boei JJWA  
 JOURNAL OF CELL SCIENCE: 1757-1767, 15-3-2005, ID:000229089500021  
 Affiliation: Leiden Univ, Suez Canal Univ
  - Pairing of heterochromatin in response to cellular stress**  
 Abdel-Halim HI, Mullenders LHF, Boei JJWA  
 EXPERIMENTAL CELL RESEARCH: 1961-1969, , ID:000238601900004  
 Affiliation: Leiden Univ, Suez Canal Univ



### Under registration:

**Age-dependent spontaneous mutagenesis in Xpc mice defective in nucleotide excision repair (2000 / )**

#### Type of publication:

Article in Journal

[Change](#)

#### HELP

Enter the key information. All **mandatory** fields are marked with an asterisk (\*). You will not be able to save your item before you have filled in all mandatory fields.

#### 1. Key information \*

#### 2. Authors \*

#### 3. Journal

#### 4. Areas and projects

#### 5. Full text deposit

#### 6. Registration process

### KEY INFORMATION

Please, fill in all key information. Mandatory fields are marked with an asterisk (\*).

#### Title: \*

Age-dependent spontaneous mutagenesis in Xpc mice defective in nucleotide excision repair

[Check for duplicates](#)

#### Subtitle:

#### Language:

English

#### External:

Select external or internal

#### Publication status:

Published

#### Content type:

Other scientific  Peer reviewed  Popular science

#### Abstract:

Rich text editor toolbar with icons for undo, redo, bold, italic, strikethrough, subscript, superscript, bulleted list, numbered list, link, unlink, help, HTML, print, and save.

DNA damages caused by cellular metabolites and environmental agents induce mutations, that may predispose to cancer. Nucleotide excision repair (NER) is a major cellular defence



### Under registration:

### Age-dependent spontaneous mutagenesis in Xpc mice defective in nucleotide excision repair (2000 / )

#### Type of publication:

Article in Journal

**Change**

1. Key information \*

2. Authors \*

3. Journal

4. Areas and projects

5. Full text deposit

6. Registration process

#### AUTHOR INFORMATION\*

If the publication is retrieved from an online source, the names on the organisations and authors have been imported. If the publication is made accessible over the Public web, the author on position 1 in the list will be highlighted.

#### Affiliation:

Univ Texas, Leiden Univ, Natl Inst Publ Hlth & Environm, Erasmus Univ, Interuniv Inst Radiopathol & Radiat Protect

#### Authors:

Click on Lookup to check if the imported names match any of the person names already registered in the system. Alternatively, click on Select in the infobar to find the persons manually.

Wijnhoven SWP, Kool HJM, Mullenders LHF, van Zeeland AA, Friedberg EC, van der Horst GTJ, van Steeg H, Vrieling H

Lookup

1

Select

Cancel

Add

**VAN DER HORST, Gijsbertus T. J. (ERASMUS MEDICAL CENTER ROTTERDAM)**

Add

**VAN ZEELAND, Antonius Albertus (LUMC)**

Add

**VRIELING, Harry (LUMC)**

Add

**Wijnhoven, Susan WP (LUMC)**

Add

**Kool, Hanneke JM (ERASMUS MEDICAL CENTER ROTTERDAM)**

Add

**Friedberg, Errol C (University of Texas Southwestern Medical Center)**

Add

**van Steeg, Harry (National Institute of Public Health and the Environment (RIVM))**

#### HELP

All authors are listed here. You can add further authors that already exist in the system by clicking on **Select**. In the tab **Search**, you can search for their first and last names. In the tab **List view**, the system will present you all available persons listed alphabetically. Click on **Add** in order to link the author to your publication. If the person you want to relate to your publication does not yet exist in the system, the system administrator can create it by

silver

build 4923



# Definierbare Listen bieten einen schnellen Zugriff auf alle Inhalte ...

CONVERIS Research Database

CONVERIS 3.7 | MY PAGES | PUBLIC WEB | LOGOUT

## List of Publications

My pages » Publications

**Overview** | Statistics | Actions | Help Add NEW

**Publication related filters:**

**Filtering by Relation:**

**Keyword filters:**

3 entries found (0 selected).

<input type="checkbox"/> Title (Year / Main author) ^	Pub
<input type="checkbox"/> Age-dependent spontaneous mutagenesis in Xpc mice defective in nucleotide excision repair (2000 / )	Ar
<input type="checkbox"/> Analysis of repair of UV-induced DNA damage in transcriptionally active and inactive genes in rat cardiac fibroblasts and terminally differentiated myocytes (2000 / Leon Mullenders)	Ot
<input type="checkbox"/> Limited-stage small-cell lung cancer: Therapeutic options - The Ganti/Zhen/Kessinger article reviewed (2007 / Lauri AALTONEN)	Cc

|  |

**Preview:**  
**Under registration: Age-dependent spontaneous mutagenesis in Xpc mice defective in nucleotide excision repair (2000 / )**

**KEY INFORMATION**

**Title: \***  
Age-dependent spontaneous mutagenesis in Xpc mice defective in nucleotide excision repair

**Subtitle:**

**Language:**  
English

**External:**

**Publication status:**  
Published

**Content type:**

**Abstract:**  
DNA damages caused by cellular metabolites and environmental agents induce mutations, that may predispose to cancer. Nucleotide excision repair (NER) is a major cellular defence mechanism acting on a variety of DNA lesions. Here, we show that spontaneous mutant frequencies at the Hprt gene increased 30-fold in T-lymphocytes of 1 year old Xpc(-/-) mice, possessing only functional transcription-coupled repair (TCR), Hprt mutant frequencies in Xpa(-/-) and Csb(-/-) mice that both have a defect in this NER subpathway, remained low during ageing. In contrast to current models, the elevated mutation rate in Xpc(-/-) mice does not lead to an increased tumour incidence or premature ageing.

**Keywords:**  
nucleotide excision repair Hprt mutation cancer transgenic mice dna-repair increased susceptibility pyrimidine dimers dhfr gene damage accumulation mutations apoptosis induction p53

**AUTHORS**

**Affiliation:**

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CONVERIS Research Database

CONVERIS 3.7 | MY PAGES | PUBLIC WEB | LOGOUT

## Edit Search profile

**Current:**  
**Mullenders, L - Leiden - search in PubMed: true / in ISI: true**

- 1. Key information \*
- 2. Filters and sources
- 3. Profile for
- 4. Check the profile
- 5. Current status

**CHECK SEARCH PROFILE**

[Check profile](#)

Click here to check the results of the above set criterion.

PubMed (3) | ISI (8)

**Assessing cancer risks of low-dose radiation.**  
Mullenders L, Atkinson M, Paretzke H, Sabatier L, Bouffler S  
Nature reviews. Cancer: 596-604, 1-8-2009, ID:19629073  
Affiliation: Department of Toxicogenetics, Leiden University Medical Centre, Leiden 2300RC, The Netherlands. L.Mullenders@lumc.nl  
[Link to PubMed](#)

**Nucleotide excision repair in rat male intact cells contrasts with high dual inc**  
Jansen J, Olsen AK, Wiger R, Naegeli H, de B JA, Brunborg G, Mullenders L  
Nucleic acids research: 1791-800, 1-4-2001,  
Affiliation: MGC-Department of Radiation Ge  
Leiden University Medical Center, Wassena  
[Link to PubMed](#)

**High-resolution in situ hybridization us**  
Wiegant J, Kalle W, Mullenders L, Brookes S  
Ommen GJ, Raap AK  
Human molecular genetics: 587-91, 1-11-19  
Affiliation: Department of Cytochemistry and  
Netherlands.  
[Link to PubMed](#)

Display AbstractPlus Show 20 Sort By

All: 1 Review: 0

1: [Nat Rev Cancer](#). 2009 Aug;9(8):596-604.

**Assessing cancer risks of low-dose radiation.**

**[Mullenders L](#), [Atkinson M](#), [Paretzke H](#), [Sabatier L](#), [Bouffler S](#).**  
Department of Toxicogenetics, Leiden University Medical Centre, Leiden 2300RC, The Netherlands. L.Mullenders@lumc.nl

Ionizing radiation is considered a non-threshold carcinogen. However, quantifying the risk of the more commonly encountered low and/or protracted radiation exposures remains problematic and subject to uncertainty. Therefore, a major challenge lies in providing a sound mechanistic understanding of low-dose radiation carcinogenesis. This Perspective article considers whether differences exist between the effects mediated by high- and low-dose radiation exposure and how this affects the assessment of low-dose cancer risk.

PMID: 19629073 [PubMed - indexed for MEDLINE]

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# Netzwerkgrafiken visualisieren Zusammenhänge ...

CONVERIS Research Database



## Network graph generator

CONVERIS 3.7 | MY PAGES | PUBLIC WEB | LOGOUT

My pages » Actions » Network graph

Select a template

Select scope IOT

Settings

Overview & Generate

### Overview & Generate

**Selected template:**

Network of organisations based on joint projects restricted to an area

**Selected Area:**

Startpage ()

**Number of bubbles:**

10

**Selected mode:**

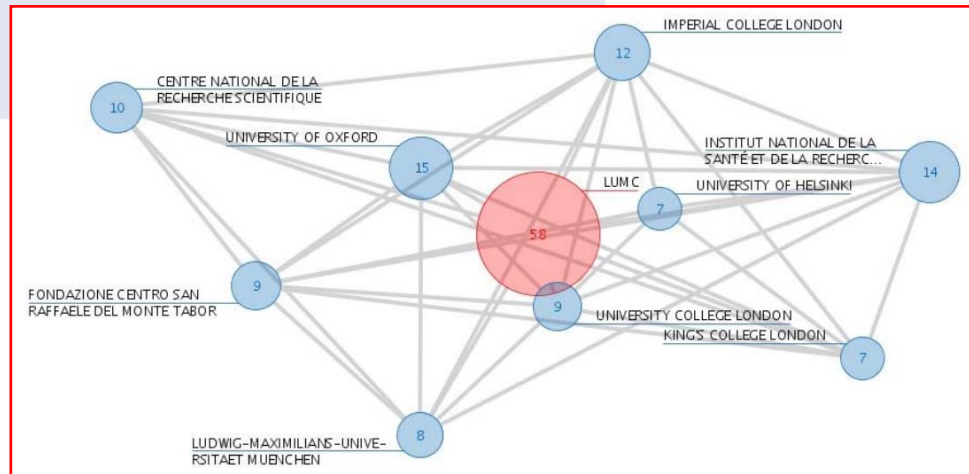
Objects nearest to chosen object:

- LUMC

**Output format:**

PDF

Generate





# Unterschiedliche Publikationsberichte bieten Überblick ...

CONVERIS Research Database

CONVERIS 3.7 | MY PAGES | PUBLIC WEB | LOGOUT



## Publication report

My pages » Actions » Reports

Select attributes

Select persons

Select organisations

Select partner orga.

Select journals

Select areas

Filter settings

Filter preview

### Number of filter results

Publication(s): 51

### ATTRIBUTES

#### From year

-

#### To year

-

#### Publication type

Article in Journal, Report, Book, Monograph, Student thesis, Conference review, Article (Review, Survey), Licentiate thesis, monography, Other

#### Process status

Under registration, For validation by

### PERSONS

Mullenders, Leon (LUMC)

### ORGANISATION

No objects selected.

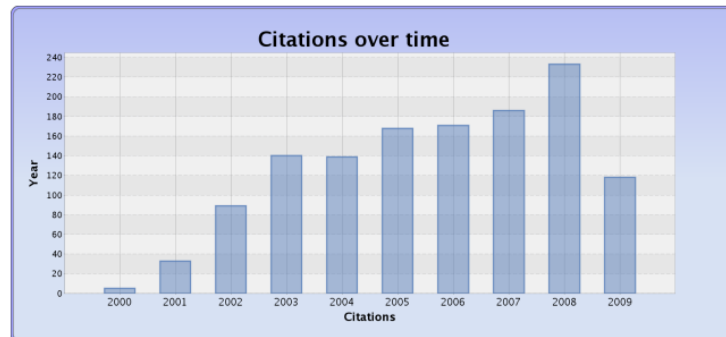
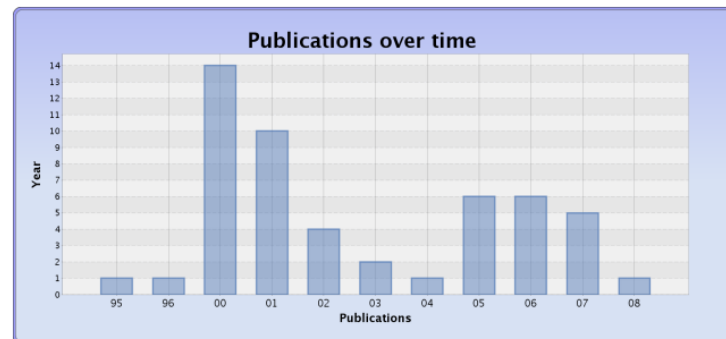
### PARTNER ORGANISATION

No objects selected.

### Overview

The first column below includes indicators calculated based on all publications matching the selection criteria. The second column is further limited to publications with a Thomson Reuters publication id (i.e. UT).

Publications:	51	Publications from Thomson Reuters:	42
Co-authors:	7	Non-cited publications:	4
Co-author organisations:	4	Citations:	1282
Journals:	3	Citations per publication:	30.52
		h-index:	18





# Lebensläufe können in unterschiedlichen Formaten erzeugt werden ...

CONVERIS Research Database

CV Generator

CONVERIS 3.7 | MY PAGES | PUBLIC WEB | LOGOUT

My pages » Actions » CV Generator

- Select a person
- Select CV content
- Format settings
- Overview & Download

HELP

### Select CV content



Curriculum vitae for: **Mullenders, Leon (LUMC)**

Organisations:  LUMC

Content:  Publications  Projects  Activities

Start date:

End date:

Curriculum Vitae

Prof. Leon Mullenders

Phone: +31-71-5266603  
 Fax: +31-71-5266264  
 Email: [lmullens@googlemail.com](mailto:lmullens@googlemail.com)

Research projects

Others

2005 - 2009 DNA damage response and repair mechanisms

Publications

Article (Book review)

Brooke, JH (2000). From physico-chemistry to biotechnology: essays in the social and cultural history of biosciences: a Festschrift for Mikulas Telen. MEDICAL HISTORY, (21502J2), 117-118

Article (Review, Survey)

van der Wees C, Jansen J, Vrieling H, van der Leese A, Van Zeeland A, Mullenders L (2007). Nucleotide excision repair in differentiated cells. Mutation research, 614(142)

Article in Journal

Aksoy, S; Lujsterburg, MB; Pites, A; Geverts, B; Mari, PC; Giglio-Mari, G; Lens, H; Houtsmuller, AB; Mullenders, LHF; Hoelmakers, JHU (2008). Cellular Concentrations of DDB2 Regulate Dynamic Binding of DDB1 at UV-induced DNA Damage. MOLECULAR AND CELLULAR BIOLOGY, , 7402-7413

Solov, LM; Mullenders, LHF; Deroudi, F; Natarajan, AT (2007). Adaptive response to DNA and chromosomal damage induced by X-rays in human blood lymphocytes. MUTAGENESIS, , 117-122

Moser, J; Kool, H; Glakzels, I; Caldecott, K; Mullenders, LHF; Foustier, M (2007). Sealing of chromosomal DNA nicks during nucleotide excision repair requires XPC-H1 and DNA ligase III alpha in a cell-cycle-specific manner. MOLECULAR CELL, , 311-323

Nijhof, JGW; van Pelt, C; Mulder, AA; Mitchell, DL; Mullenders, LHF; de Grujil, FR (2007). Epidermal stem and progenitor cells in murine epidermis accumulate UV damage despite NER proficiency. CARDIOGENESIS, , 752-800

Belangen-Asamin S, Liamasas E, Tang Y, Joachim K, Calocanu AM, Jhas S, Sifani S (2007). Inhibition of cortical astrocyte differentiation by Hes6 requires amino- and carboxyterminal motifs important for dimerization and phosphorylation. Journal of neurochemistry, (1036)

Jhas S, Ciura S, Belangen-Asamin S, Dong Z, Liamasas E, Theisaut FM, Joachim K, Tang Y, Liu L, Liu J, Sifani S (2008). Hes6 inhibits astrocyte differentiation and promotes neurogenesis through different mechanisms. The Journal of neuroscience : the official journal of the Society for Neuroscience, 28(43)

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My pages » Actions » Customised export

1. Select filter

2. Export settings

3. Overview & export

HELP

### 1. SELECT INFORMATION TYPE

Select the information type object

Information type: Publication

Available attributes:

Publication type  
Title  
Subtitle

Copy all

Copy



### 2. SELECT

Select th

Relation

	A	B	C
1	IOT_PUBLICATION_TITLE	IOT_PERSON_LAST_NAME	IOT_PERSON_FIRST_NAME
2	A common genetic variation in the 3'-untranslated re	Mullenders	Leon
3	A role for cell cycle-regulated phosphorylation in Gr	Mullenders	Leon
4	Adaptive response to DNA and chromosomal damag	Mullenders	Leon
5	Age-dependent spontaneous mutagenesis in Xpc mi	Mullenders	Leon
6	An shRNA barcode screen provides insight into canc	Mullenders	Leon
7	Analysis of repair of UV-induced DNA damage in trar	Mullenders	Leon
8	Bio-mineralization of organic matter in dairy wastev	Mullenders	Leon
9	Blockage of transcription as a trigger for p53 accumu	Mullenders	Leon
10	Cellular Concentrations of DDB2 Regulate Dynamic B	Mullenders	Leon
11	Cockayne syndrome A and B proteins differentially r	Mullenders	Leon
12	Differential effects of toxic metal compounds on the	Mullenders	Leon
13	Differential role of transcription-coupled repair in U	Mullenders	Leon
14	DMBA-induced toxic and mutagenic responses vary c	Mullenders	Leon
15	Domain structure, localization, and function of DNA	Mullenders	Leon
16	Elimination of keratinocytes stagnant in S-phase thr	Mullenders	Leon
17	Enhanced DDB2 expression protects mice from carcir	Mullenders	Leon



- Erweiterung mit zusätzlichen Inhalten
  - Phase 2: Projektmanagement & Vertragsadministration
  - Phase 3: Einbindung von weiteren bibliometrischen Indikatoren
  - Phase 4: Studienpläne für Graduate School
- Anbindung an interne Systeme für kontinuierliche Aktualisierungen
  - Integration mit Login-Server, HR- und Finanzsystem
  - Integration mit Scopus
  - Integration mit OCLC für DAI

Ausbau hin zu einem umfassenden Forschungsinformationssystem



- Flexibilität notwendig – Ständig neue Anpassungen an die individuellen Bedürfnisse
- Schnelle Inbetriebnahme und schrittweise Erweiterungen – niedrigeres Risiko, weniger Kosten
- Wiederverwendung von internen und externen Quellen – niedriger Aufwand für manuelle Administration und Qualitätsverbesserungen in allen Systemen
- Organisationsübergreifende Verankerung– viele Organisationseinheiten sind betroffen
- Nutzen für alle Nutzer – einmaliger Input, mehrfacher Nutzen

Vielen Dank für Ihre Aufmerksamkeit!

