

Director of the Research Center

J.W.J. Bijlsma (Prof. MD, PhD, Medical Director)

**Institution**

Rheumatology & Clinical Immunology
University Medical Centre Utrecht

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Members of the Center**Full professors**

Lafeber FPJG (PhD)
Hack EC (MD, PhD) (10%)
Geenen R (UU, Clin.& Health Psychol.)

Experimental rheumatology; Manager of research
Innate immunology of chronic immune disease
Psychology of rheumatic diseases

Associate professors

Derksen RWHM (MD, PhD)
Jacobs JWG (MD, PhD)
Laan van der WH (MD, PhD) (10%)

clinical immunology; SLE
epidemiology, RA
osteoarthritis; OA

Assistant professors (PIs)

Roon van JAG (PhD, immunologist) (80%)
Mastbergen SC (PhD, med. biologist)
Welsing PMJ (PhD, epidemiologist) (60%)

immunology
(cartilage) tissue regeneration
epidemiology

Medical Specialists/PhDs

Marijnissen ACA (PhD, 80%)
Kruize AA (MD, PhD)
Rijthoven van AWAM (MD, PhD)
Tekstra J (MD, PhD)
Ton E (MD)
Fritsch Stork R (MD)

Medical ethical affairs and clinical monitoring
Sjögren's syndrome (SS)
Clinical trials
Rheumatoid arthritis (RA)
Sclerodermia research
Systemic Lupus Erythematosus (SLE)

PhD Students

Bakker Marije	Computer Assisted Measurement of Early RA
Bikker Angela	The role of IL-7 in SS
Blom David	Psychosocial threats in fibromyalgia and RA
Boer de Tiencke	Selective COX-2 inhibition in OA
Goes vande Marlies (MD)	Efficacy and side effects of GC treatment in RA
Hartkamp Andre (MD)	Fatigue and DHEAS treatment in SS and SLE
Hillen Maarten	IL-7 and TSLP in RA and SS
Hoes Jos (MD)	Efficacy and side effects of GC treatment in RA
Huo Justin	Automated X-ray analyses of joint damage in RA
Jurgens Maud	Cost effectiveness of tailored treatment of RA
Kinds Margot	imaging in OA
Kool Marianne	Quantification of key issues in rheumatic disease
Leeuwen van Ninke	Psychological evaluation of SS
Meegeren van Monique	Blood induced cartilage damage
Moret Frederique	Prediction of biological efficacy
Nair Sandhya	Health technology assessment in RA
Nieuwenhuizen Laurens (MD)	Coagulation and inflammation in joint damage
Spil van Erwin (MD)	Serum and urine biomarkers in OA
Vos Petra (MD)	Aging of cartilage predisposes to OA
Wesseling Janet	Coordinator OA cohort hip & cohort knee (CHECK)
Wiegant Karen	Joint distraction as treatment of severe OA
vacancy	Pain receptor identification in OA

Technicians

Wenting-van Wijk MJG (80%)	senior technician
Wurff -Jacobs van der KMG (80%)	research technician
Barten AD	research technician
Vianen ME (30%)	research technician
Louws C (70%)	research technician
Veghel van K	research technician
Conception AN	technician
Berg van de D	technician
vacancy	technician

Research nursus

Sloeserwij A (60%)	research nurse
Dietvorst M (60%)	research nurse
Van Door J (60%)	research nurse

Data managers/analysers

Sijbers-Klaver M (60%)	senior data manager
Jacobs A (20%)	clinical data collection
Everdingen van M (5%)	radiograph scorer
Lafeber-Melief MHG (10%)	radiograph scorer
Bakker J (15%)	data manager assistant
Graauw de M (60%)	data manager

Current Fields of Research

Our final goal is to improve clinical practice by development and improvement of diagnosis and treatment of rheumatic diseases.

For this purpose we perform translational rheumatology research: questions from basic research are translated, when necessary and possible via *in vivo* animal research, to clinical studies. The other way around, questions raised from clinical practice are translated into basic research and results will be confirmed (when necessary and possible via *in vivo* animal studies) by clinical studies.

There is a focus on translational biomedical research. There are three central themes based on three specific patient populations: patient with **rheumatoid arthritis**, with **osteoarthritis**, and with **systemic auto immune diseases**. In each of these themes, various research lines are subject of study. This research fits within the central themes 'chronic inflammation' and 'musculoskeletal tissues' each within two of the six focus areas of the UMC Utrecht: '**immunity**' and '**regenerative medicine - stem cells**'.

In all cases cohorts of patients are the basis, enabling clinical (epidemiologic) studies, as well as *ex vivo* research. These cohorts are also a source of biomaterials for more fundamental *in vitro* approaches. Questions arising from clinical practice will be studied using these *in vitro* and *ex vivo* approaches. When findings appear of relevance they are tested in animal models and subsequently may enter clinical trials.

More details about our mission, setting, research group and collaborations can be found on this website: www.umcutrecht.nl/rheumatology-research.

Selected Publications

(for an overview of all publications, see www.umcutrecht.nl/rheumatology-research.)

- Osteoarthritis: an update with relevance for clinical practice. Bijlsma JWJ, Berenbaum F, Lafeber FPJG. *The Lancet*, 2011, accepted. IF: 29
- Serum and urinary biochemical markers for knee and hip-osteoarthritis: a systematic review applying the consensus BIPED criteria. van Spil WE, DeGroot J, Lems WF, Oostveen JC, Lafeber FP. *Osteoarthritis Cartilage*. 2010;18: 605-12. IF:4.4
- Elevated expression of interleukin-7 receptor in inflamed joints mediates interleukin-7-induced immune activation in rheumatoid arthritis. Hartgring SA, van Roon JA, Wenting-van Wijk M, Jacobs KM, Jahangier ZN, Willis CR, Bijlsma JW, Lafeber FP. *Arthritis Rheum*. 2009; 60:2595-605. IF: 6.8
- CHECK: Cohort Hip & Cohort Knee; similarities and differences with the OA initiative. Wesseling J, et al., and Bijlsma JWJ. *Ann Rheum Dis*. 2009; 68: 1413-9. IF: 6.4
- Glucocorticoid chronotherapy in rheumatoid arthritis. Bijlsma JWJ, and Jacobs JW. *The Lancet* 2008; 371:183-184. IF:29
- Glucosamine sulphate in osteoarthritis; the jury is still out. Bijlsma JWJ and Lafeber FPJG. *Annals of Internal Medicine* 2008; 148:315-316. IF:16
- Current insight into diagnostic and pathophysiology of the antiphospholipid syndrome. Urbanus RT, Derksen RH, and de Groot PG. *Blood, review* 2008; 22 : 93-105. IF:11
- Tight control in treatment of rheumatoid arthritis: efficacy and feasibility. Bakker MF et al., and Bijlsma JWJ. *Ann Rheum Dis* 2007; 66: 56-60. IF: 6.4
- Intensive treatment with methotrexate in early rheumatoid arthritis: aiming for remission. Computer Assisted Management in Early Rheumatoid Arthritis (CAMERA, an open-label

strategy trial). Verstappen SM, Jacobs JW, van der Veen MJ, Heurkens AH, Schenk Y, ter Borg EJ, Blaauw AA, Bijlsma JW; Utrecht Rheumatoid Arthritis Cohort study group. *Ann Rheum Dis*. 2007; 66:1443-9. IF: 6.4

- EULAR evidence-based recommendations on the management of systemic glucocorticoid therapy in rheumatic diseases. Hoes JN, Jacobs JW, Boers M, Boumpas D, Buttgereit F, Caeyers N, Choy EH, Cutolo M, Da Silva JA, Esselens G, Guillevin L, Hafstrom I, Kirwan JR, Rovensky J, Russell A, Saag KG, Svensson B, Westhovens R, Zeidler H, Bijlsma JW. *Ann Rheum Dis*. 2007; 66:1560-7. IF: 6.4
- Alendronate or alfacacidol in glucocorticoid-induced osteoporosis De Nijs RNJ, et.al., and Bijlsma JWJ. *New England Journal of Medicine* 2006; 355: 675-684. IF:52
- Low-dose prednisone therapy for patients with early active RA: clinical efficacy, disease modifying properties, and side effects: a double-blind controlled clinical trial. Van Everdingen AA, et al., and Bijlsma JWJ. *Annals of Internal Medicine* 2002, 136: 1-12. IF:16

Current Funding

University Medical Centre Utrecht
Dutch Arthritis Association
Industries
Government

Training of Fellows in Research

The department of Rheumatology & Clinical Immunology has for its research the disposal (alone or in collaboration) of large patients cohorts, relevant animal models (central animal facility) and a well equipped research laboratory specialized in cell and tissue culture and protein-chemistry.

Research within the department is directed by a rheumatologist (head of the department) and a biologist (manager of research of the department). There is an integrated collaboration with the UU on 'psychology of rheumatic diseases' and the UMCU, department 'laboratory and pharmacy' on more basic immunology and protein chemistry, and there is close collaboration with the department of orthopedics on 'cartilage tissue regeneration'. The research program is structured by three principle investigators (PIs) with each a clinical counterpart (co-PI). One team for the immunology (a physician in rheumatology / internal medicine with a (medical) biologists / immunologists), one for tissue regeneration (a physician in rheumatology with a (medical) biologist), and one for the epidemiology regarding inflammation and tissue regeneration (a physician in rheumatology with an epidemiologist). Clinical work is supported/coordinated by a PhD and an MD, specialized in this field. The research is executed in addition by (PhD) students/trainees in medicine, (medical)biology, movement scientists or related training, technicians, research nurses, and datamanagers.

This organisation and infrastructure provides the necessary ingredients to perform state-of-the-art translational research.

WebPages

www.umcutrecht.nl

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