

**Tätigkeitsbericht über die Seniorprofessur "Psychosoziale
Arbeitsbelastungsforschung“ an der Medizinischen Fakultät
der Heinrich-Heine-Universität Düsseldorf**

Juni 2012 bis Dezember 2014

Prof. Dr. Johannes Siegrist

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1. Das EU- Forschungsprojekt DRIVERS HEALTH-F3-2011-278350

a) *Systematische Reviews, Meta-Analysen; Originalarbeiten aus sekundäranalytischen Auswertungen:*

1. Hoven H, Siegrist J. Work characteristics, socioeconomic position and health: a systematic review of mediation and moderation effects in prospective studies. *Occupational and Environmental Medicine* 2013;70(9):663–9.

2. Hoven H, Wahrendorf M, Siegrist J. Occupational position, work stress and depressive symptoms: A pathway analysis of longitudinal SHARE data. *Journal of Epidemiology & Community Health*. 2014 (JECH-2014-205206.R1, in press).

3. Lunau T, Wahrendorf M, Dragano N, Siegrist J. Work stress and depressive symptoms in older employees: impact of national labour and social policies. *BMC Public Health* 2013;13(1):1086.

4. Montano D, Hoven H, Siegrist J. Effects of organisational-level interventions at work on employees' health: a systematic review. *BMC Public Health* 2014;14:135.

5. Montano D, Hoven H, Siegrist J. A meta-analysis of health effects of randomized controlled worksite interventions: Does social stratification matter? *Scandinavian Journal of Work and Environmental Health* 2014;40(3):230–4.

6. Montano D. Upper body and lower limbs musculoskeletal symptoms and health inequalities in Europe. An analysis of cross-sectional data. *BMC Musculoskeletal Disorders* 2014; 15: 285.

7. Montano D. Chemical and biological work-related risks across occupations in Europe: a review. *Journal of Occupational Medicine and Toxicology* 2014;9:28.

8. Wahrendorf M, Siegrist J. Proximal and distal determinants of stressful work: framework and analysis of retrospective European data. *BMC Public Health* 2014; 14: 849.

b) *Case studies:*

9. Fekete C, Wahrendorf M, Reinhardt J, Post MWM, Siegrist J. Work stress and quality of life in persons with disabilities from four European countries. *Quality of Life Research* 2014; 23: 1661-1671.

10. Hoven H, Ford R, Willmot A, Hagen S, Siegrist J. Job coaching and success in gaining and sustaining employment among homeless people. *Research on Social Work Practice* 2014; DOI: 10.1177/1049731524562285.

2. Wissenschaftliche Originalarbeiten, eingeladene internationale Vorträge und akademische Ämter

2.1. Original peer-reviewed papers:

2012

Erbel R, Lehmann N, Möhlenkamp S, Churzidse S, Bauer M, Kälsch H, Schmermund A, Moebus S, Stang A, Roggenbuck U, Btöcker-Preuß M, Dragano N, Weimar C, **Siegrist J**, Jöckel KH on behalf of the Heinz Nixdorf Study Investigators (2012) Subclinical coronary atherosclerosis predicts cardiovascular risk in different stages of hypertension: Results of the Heinz Nixdorf Recall Study. *Hypertension* 59: 44-53

Fransson EI, Heikkilä K, Nyberg ST, Zins M, Westerlund H, Westerholm P, Väänänen A, Virtanen M, Vahtera J, Theorell T, Suominen S, Singh-Manoux A, **Siegrist J**, Sabia S, Rugulies R, Pentti J, Oksanen T, Nordin M, Nielsen ML, Marmot MG, Magnusson Hanson LL, Madsen IEH, Lunau T, Leineweber C, Kumari M, Kouvonen A, Koskinen A, Koskenvuo M, Knutsson A, Kittel F, Jöckel KH, Joensuu M, Houtman IL, Hoofman WE, Goldberg M, Geuskens GA, Ferrie JE, Erbel R, Dragano N, De Bacquer D, Clays E, Casini A, Burr H, Borritz M, Bonenfant S, Bjorner JB, Alfredsson L, Hamer M, Batty GD, Kivimäki M (2012) Job Strain as a Risk Factor for Leisure-Time Physical Inactivity: An Individual-Participant Meta-analysis of up to 170,000 Men and Women. The IPD-Work Consortium. *American Journal of Epidemiology*, 176: 1078-1089.

Heikkilä K, Nyberg ST, Fransson EI, Alfredsson L, De Bacquer D, Bjorner JB, Bonenfant S, Borritz M, Burr H, Clays E, Casini A, Dragano N, Erbel R, Geuskens G, Goldberg M, Hoofman WE, Houtman IL, Joensuu M, Jöckel KH, Kittel F, Knutsson A, Koskenvuo M, Koskinen A, Kouvonen A, Leineweber C, Lunau T, Madsen IEH, Magnusson Hanson LL, Marmot MG, Nielsen ML, Nordin M, Pentti J, Salo P, Rugulies R, Steptoe A, **Siegrist J**, Suominen S, Vahtera J, Virtanen M, Väänänen A, Westerholm P, Westerlund H, Zins M, Theorell T, Hamer M, Ferrie JE, Singh-Manoux A, Batty GD, Kivimäki M, for the IPD-Work Consortium (2012) Job Strain and Tobacco Smoking: An Individual-participant Data Meta-analysis of 166 130 Adults in 15 European Studies. *PLoS One* 7(7):e35463.

Heikkilä K, Nyberg ST, Fransson EI, Alfredsson L, De Bacquer D, Bjorner JB, Bonenfant S, Borritz M, Burr H, Clays E, Casini A, Dragano N, Erbel R, Geuskens GA, Goldberg M, Hoofman WE, Houtman IL, Joensuu M, Jöckel KH, Kittel F, Knutsson A, Koskenvuo M, Koskinen A, Kouvonen A, Leineweber C, Lunau T, Madsen IE, Magnusson Hanson LL, Marmot MG, Nielsen ML, Nordin M, Pentti J, Salo P, Rugulies R, Steptoe A, **Siegrist J**, Suominen S, Vahtera J, Virtanen M, Väänänen A, Westerholm P, Westerlund H, Zins M, Theorell T, Hamer M, Ferrie JE, Singh-Manoux A, Batty GD, Kivimäki M; IPD-Work Consortium. (2012) Job strain and alcohol intake: a collaborative meta-analysis of individual-participant data from 140,000 men and women. *PLoS One* 7(7):e40101

Kivimäki M, Nyberg ST, Batty GD, Fransson EI, Heikkilä K, Alfredsson L, Bjorner JB, Borritz M, Burr H, Casini A, Clays E, De Bacquer D, Dragano N, Ferrie JE, Geuskens GA, Goldberg M, Hamer M, Hooftman WE, Houtman IL, Joensuu M, Jokela M, Kittel F, Knutsson A, Koskenvuo M, Koskinen A, Kouvonen A, Kumari M, Madsen IE, Marmot MG, Nielsen ML, Nordin M, Oksanen T, Pentti J, Rugulies R, Salo P, **Siegrist J**, Singh-Manoux A, Suominen SB, Väänänen A, Vahtera J, Virtanen M, Westerholm PJ, Westerlund H, Zins M, Steptoe A, Theorell T; IPD-Work Consortium (2012) Job strain as a risk factor for coronary heart disease: a collaborative meta-analysis of individual participant data. *Lancet*, 380(9852):1491-1497.

Knesebeck Ovd, Hoehne A, Link C, Marceau L, Adams A, Roland M, Campbell S, **Siegrist J**, McKinlay J (2012) Talking about smoking in primary care medical practice- Results of experimental studies from the Us, UK and Germany. *Patient Education and Counseling* 89: 51-56.

Li J, **Siegrist J** (2012) Physical activity and cardiovascular disease: a systematic review. *International Journal of Environmental Research and Public Health* 9: 391-407

Li J, Loerbroks A, Jarczok MN, Schöllgen I, Bosch JA, **Siegrist J**, Fischer JE. (2012) Psychometric properties and differential explanation of a short measure of effort-reward imbalance at work: a study of industrial workers in Germany. *American Journal of Industrial Medicine* 55: 808-815

Li J, Loerbroks A, Shang L, Wege N, Wahrendorf M, **Siegrist J** (2012) Validation of a short measure of effort-reward imbalance in workplace: Evidence from China. *Journal of Occupational Health* 54: 427-433

Msaouel P, Keramaris NC, Apostolopoulos AP, Syrmos N, Kappos T, Tasoulis A, Tripodakis ES, Kagiampaki E, Lekkas I, **Siegrist J** (2012) The effort-reward imbalance questionnaire in Greek: Translation, validation and psychometric properties in health professionals. *Journal of Occupational Health* 54: 119-130

Nyberg ST, Heikkilä K, Fransson EI, Alfredsson L, De Bacquer D, Bjorner JB, Bonenfant S, Borritz M, Burr H, Casini A, Clays E, Dragano N, Erbel R, Geuskens GA, Goldberg M, Hooftman WE, Houtman IL, Jöckel KH, Kittel F, Knutsson A, Koskenvuo M, Leineweber C, Lunau T, Madsen IEH, Magnusson Hanson LL, Marmot MG, Nielsen ML, Nordin M, Oksanen T, Pentti J, Rugulies R, **Siegrist J**, Suominen S, Vahtera J, Virtanen M, Westerholm P, Westerlund H, Zins M, Ferrie JE, Theorell T, Steptoe A, Hamer M, Singh-Manoux A, Batty GD, Kivimäki M; for the IPD-Work Consortium (2012) Job strain in relation to body mass index: pooled analysis of 160,000 adults from 13 cohort studies. *Journal of Internal Medicine*, 272:65-73.

Reinhardt J, von Elm E, Fekete C, **Siegrist J** (2012) Social inequalities in functioning and perceived health in Switzerland- a representative cross-sectional study. *PLoS ONE* 7(6): e38782.

Sembajwe G, Wahrendorf M, **Siegrist J**, Sitta R, Zins M, Goldberg M, Berkman LF (2012) Effects of job strain on fatigue: cross-sectional and prospective views of the job content questionnaire and effort-reward imbalance in the GAZEL cohort. *Occupational and Environmental Medicine* 69: 377-384

Siegrist J, Lunau T, Wahrendorf M, Dragano N (2012): Depressive symptoms and psychosocial stress at work among older employees in three continents. *Globalization and Health* 8:27

Voltmer E, Rosta J, **Siegrist J**, Aasland OG (2012) Job stress and job satisfaction of physicians in private practice: comparison of German and Norwegian physicians. *International Archives of Occupational and Environmental Health* 85: 819-828.

Wahrendorf M, Sembajwe G, Berkman L, Zins M, Goldberg M, **Siegrist J** (2012) Long-term effects of psychosocial work stress in mid-life on health functioning after labor market exit – results from the GAZEL study. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*. 67: 471-480

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Hoven H, **Siegrist J** (2013) Work characteristics, socioeconomic position and health: a systematic review of mediation and moderation effects in prospective studies. *Occupational and Environmental Medicine* 70: 663-669.

Kivimäki M, Nyberg ST, Fransson EI, Heikkilä K, Alfredsson L, Casini A, Clays E, De Bacquer D, Dragano N, Ferrie JE, Goldberg M, Hamer M, Jokela M, Karasek R, Kittel F, Knutsson A, Koskenvuo M, Nordin M, Oksanen T, Pentti J, Rugulies R, Salo P, **Siegrist J**, Suominen SB, Theorell T, Vahtera J, Virtanen M, Westerholm PJM, Westerlund H, Zins M, Steptoe A, Singh-Manoux A, G. Batty D (2013) Association of job strain and lifestyle factors with the risk of coronary artery disease: a meta-analysis of individual-participant data. *Canadian Medical Association Journal*, 185(9):763-769

Li J, Jarczok MN, Loerbroks A, Schöllgen I, **Siegrist J**, Bosch JA, Wilson MG, Mauss D, Fischer JE (2013). Work stress is associated with diabetes and pre-diabetes: Cross-sectional results from the MIPH Industrial Cohort Study. *International Journal of Behavioral Medicine* 20: 495-503

Li J, Shang L, Galatsch M, **Siegrist J**, Müller BH, Hasselhorn HM for the NEXT Study group (2013) Psychosocial work environment and intention to leave the nursing profession: a cross-national prospective study of 8 countries. *International Journal of Health Services* 43: 519-536

Li J, Weigl M, Glaser J, Petru R, **Siegrist J**, Angerer P (2013) Changes in psychosocial work environment and depressive symptoms: A prospective study in junior physicians. *American Journal of Industrial Medicine* 56: 1414-1422

Lunau T, Wahrendorf M, Dragano N, **Siegrist J** (2013) Work stress and depressive symptoms in older employees: impact of national labour and social policies. *BMC Public Health* 13: 1086

Nyberg ST, Fransson EI, Heikkilä K, Alfredsson L, Casini A, Clays E, De Bacquer D, **Dragano N**, Erbel R, Ferrie JE, Hamer M, Jöckel KH, Kittel F, Knutsson A, Ladwig KH, Lunau T, Marmot MG, Nordin M, Rugulies R, **Siegrist J**, Steptoe A, Westerholm PJM, Westerlund H, Theorell T, Brunner EJ, Singh-Manoux A, Batty GD, Kivimäki M for the IPD-Work Consortium (2013) Job Strain and Cardiovascular Disease Risk Factors: Meta-analysis of Individual-Participant Data from 47,000 Men and Women). *PLoS One*. 8(6):e67323

Reinhardt JD, Wahrendorf M, **Siegrist J** (2013): Socio-economic position, psychosocial work environment and disability in an aging workforce: A longitudinal analysis of SHARE data from 11 European countries. *Occupational and Environmental Medicine* 70: 156-163

Rugulies R, Aust B, Madsen IEH, Burr H, **Siegrist J**, Bültmann U (2013) Adverse psychosocial working conditions and risk of severe depressive symptoms. Do effects differ by occupational grade? *European Journal of Public Health* 23: 415-420.

Sperlich S, Arnhold-Kerri S, **Siegrist J**, Geyer S (2013) The mismatch between high effort and low reward in household and family work predicts impaired health among mothers. *European Journal of Public Health* 23: 893-898

Virtanen M, Nyberg ST, Batty GD, Jokela M, Heikkilä K, Fransson E, Alfredsson L, Bjorner JB, Borritz M, Burr H, Casini A, Clays E, De Bacquer D, Dragano N, Elovainio M, Erbel R, Ferrie JE, Hamer M, Jöckel KH, Kittel F, Knutsson A, Koskenvuo M, Koskinen A, Lunau T, Madsen IEH, Nielsen ML, Nordin M, Oksanen T, Pahkin K, Pejtersen JH, Pentti J, Rugulies R, Salo P, Shipley M J, **Siegrist J**, Steptoe J, Suominen SB, Theorell T, Toppinen-Tanner S, Väänänen A, Vahtera J, Westerholm PJM, Westerlund H, Slopen N, Kawachi I, Singh-Manoux A, Kivimäki M for the IPD-Work Consortium (2013) Perceived job insecurity as a risk factor for incident coronary heart disease: systematic review and meta-analysis. *British Medical Journal*, 347:f4746.

Wahrendorf M, Blane D, Bartley M, Dragano N, **Siegrist J** (2013) Working conditions in midlife and mental health in older ages: results from SHARELIFE. *Advances in Life Course Research* 18: 16-25

Wahrendorf M, Dragano N, **Siegrist J** (2013) Social position, work stress and retirement intentions: A study with older employees from 11 European countries. *European Sociological Review* 29: 792-802.

Wahrendorf M, Reinhardt JD, **Siegrist J** (2013) Relationships of disability with age among adults aged 50 to 85: Evidence from the United States, England and continental Europe. *PLoS One* 8/8; e71893

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Fekete C, Wahrendorf M, Reinhardt JD, Post MWM, **Siegrist J** (2014) Work stress and quality of life in persons with disabilities from four European countries. *Quality of Life Research* 23: 1661-1671

Fekete C, **Siegrist J**, Reinhardt JD, Eriks-Hoogland I, Brinkhof MWG (2014) Is financial hardship associated with reduced health in disability? The case of spinal cord injury in Switzerland. *PLoS One* 9:2 e90130

Guo H, Yang W, Cao Y, Li J, **Siegrist J** (2014) Effort-reward imbalance at school and depressive symptoms in Chinese adolescents: The role of family socioeconomic status. *International Journal of Environmental Research and Public Health* 11: 6085-6098

Hoven H, Wahrendorf M, **Siegrist J** (2014) Occupational position, work stress and depressive symptoms: A pathway analysis of longitudinal SHARE data. *Journal of Epidemiology and Community Health* (JECH-2014-205206.R1, in press)

Montano D, Hoven H, **Siegrist J** (2014) A meta-analysis of health effects of randomized controlled worksite interventions: Does social stratification matter? *Scandinavian Journal of Work and Environmental Health* 40 (3): 230-234.

Montano D, Hoven H, **Siegrist J** (2014) Effects of organisational-level interventions at work on employees' health: a systematic review. *BMC Public Health* 14:135

Shang L, Li J, Li Y, Wang T, **Siegrist J**. (2014) Stressful psychosocial school environment and suicidal ideation in Chinese adolescents. *Social Psychiatry and Psychiatric Epidemiology*.49: 205-210

Siegrist J, Dragano N, Nyberg ST, Lunau T, Alfredsson L, Erbel R, Fahlen G, Goldberg M, Jöckel KH, Knutsson A, Leineweber C, Magnusson Hanson L, Nordin M, Rugulies R, Schupp J, Singh-Manoux A, Theorell T, Wagner G, Westerlund H, Zins M, Heikkilä K, Fransson EI, Kivimäki M (2014) Validating abbreviated measures of effort-reward imbalance at work in European cohort studies: the IPD-Work consortium. *International Archives of Occupational and Environmental Health*, 87: 249-256.

Virtanen M, Jokela M, Nyberg ST, Madsen IEH, Lallukka T, Ahola K, Alfredsson, Batty DJ, Bjorner JB, Borritz M, Burr H, Casini A, Clays E, De Bacquer D, Dragano N, Erbel R, Ferrie JE, Fransson LI, Hamer M, Heikkilä K, Jöckel KH, Kittel F, Knutsson A, Koskenvuo M, Ladwig KH, Lunau T, Nielsen ML, Nordin M, Oksanen T, Pejtersen JH, Pentti J, Rugulies R, Salo P, Schupp J, **Siegrist J**, Singh-Manoux A, Steptoe A, Suominen SB, Theorell T, Vahtera J, Wagner GG, Westerholm PJM, Westerlund H, Kivimäki M (2014) Long working hours and alcohol use: systematic review and meta-analysis of published studies and unpublished individual participant data. *British Medical Journal* (Manuscript ID BMJ.2014.021027.R2; in press)

Wahrendorf M, **Siegrist J** (2014) Proximal and distal determinants of stressful work: Framework and analysis of retrospective European data. *BMC Public Health* 14: 849

2.2. Eingeladene wissenschaftliche Vorträge (international)

2012

Inégalités sociales de santé: les faits, les theories, les consequences.
ADELF Conférence, Brussels 13.09.

Santé au travail: de l'évidence scientifique à la politique preventive.
Invited Lecture Université de Montréal, 12.10.

European Review of Social Determinants of Health and Health Inequalities in Europe.
WHO Conference Warsow 26.11.

2013

Social inequalities in health: the role of work and employment.
Invited lecture University of Tel Aviv 26.02.

Strengthening healthy work: policy implications of new scientific evidence.
Invited lecture, Ministry of Health, Jerusalem, 27.02.

Recognition and health at work: from scientific evidence to policy.
International congress GESTES, Paris 10.06.

Stressful economic conditions and health across Europe
Conference, University of Santiago de Compostela 17.07.

The burden of work-related mental health problems.
EU Conference Occupational Diseases in the EU. Brussels 03.12.

2014

Challenges of measuring stress at work.
National conference ANMA, Rom 31.05

Unhealthy work in a globalized economy.
European conference MODERNET, Zaragoza 10.04.

Debate on work stress models: Robert Karasek and Johannes Siegrist
Congress of the European Academy of Occupational Health Psychology, London 14.04.

Managing stress and psychosocial risks at work.
EU-OSHA Seminar, Brussels 16.10.

Work and health in urban populations.
WHO Healthy Cities Conference, Athens 24.10.

How to reduce inequalities in health?
European Public Health Conference, Glasgow 20.11.

Work stress and health: proximal and distal determinants.
Invited lecture, University College London 28.11.

Recognition at work and its effects on health.
Invited lecture, University of Lucerne 10.12.

2.3. Akademische Ämter

Mitglied des *Hochschulrats* der Heinrich-Heine-Universität Düsseldorf (seit 2012)

Vorsitzender (gemeinsam mit Prof. A. Börsch-Supan) der Arbeitsgruppe ‚*Wissenschaftliche und gesellschaftspolitische Bedeutung bevölkerungsweiter Längsschnittstudien*‘, Leopoldina (seit 2013) (s. Anlage 2)

Mitglied der *Wissenschaftlichen Kommission* ‚Demographischer Wandel‘, Leopoldina (seit 2012)

Mitglied *Evaluation Panel European Research Council* (ERC) for Advanced Grants 2015