Steen Andreassen CV

Steen Andreassen
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Research interests

Since 1986 Steen Andreassen has been working on the development of four medical decision support systems, all of which have reached the stage of clinical testing. The decision support systems are based on model of physiology and pathophysiology and formal methods like decision theory are used to arrive at decisions. He has been system architect on MUNIN, a system for diagnosing neuromuscular disorders, and on DIAS, a system for advising on insulin dose adjustment in type I diabetes patients. He is co-ordinator for a four-year (2000-2004) EU-funded project TREAT. The goal of this project is to provide advice on antibiotic therapy for severe infections. He is leading a four-year (1999-2003) project "Model-Based Medical Decision Support Systems" funded by the IT-Committee under the Danish Research Councils currently extended to 2010. This project also includes work on the decision support system INVENT for assessment of the respiratory and metabolic status of several groups of patients (circulatory problems, postoperative hypoxeamia, acid/base disturbances).

Education and academic degrees

2000
Awarded the degree of Dr. Tech. from Aalborg University for the dissertation "Medical Decision Support Systems Based on Causal Probabilistic Networks"

1977-1978
One year visit to Dr. R. B. Stein, Institute of Physiology, University of Alberta, Canada, including a two month study trip to universities and research institutions in USA. Supported by the Danish Research Councils and private foundations.

1973-1976
Ph. D. in Electronic Engineering from Dept. of Electronic Engineering, Technical University of Denmark and from Institute of Neurophysiology, University of Copenhagen for the thesis "Interval Pattern of Single Motor Units"

1973
M. Sc. in Electronic Engineering from the Technical University of Denmark.

Employment

2006-
Professor at Aalborg University, Dept. of Health Science and Technology

1998-
Head of Center for Model-based Medical Decision Support

1989-2006
Reader (docent) at Aalborg University, Dept. of Health Science and Technology (former Dept. of Medical Informatics and Image Analysis).

1983-1989
Associate professor at Aalborg University, Dept. of Medical Informatics and Image Analysis.
1980-1983 Research fellow at Aalborg University, Dept. of Medical Informatics and Image Analysis.

1978-1980
Research assistant at Aalborg University, Dept. of Medical Informatics and Image Analysis funded by a three year grant from the Danish Technical and Medical Research Councils for "The motor system as a control system".

1977-1978

Post Doctoral Fellow at Institute of Physiology, University of Alberta, Canada

1973-1976
Ph.D. student at Dept. of Electronic Engineering, Technical University of Denmark and at the Institute of Neurophysiology, University of Copenhagen.

Industrial activities

2011-
CEO of Treat Systems ApS

2008-
Co-founder and member of the board of Treat Systems ApS

2005-2009
Member of the board of Mermaid Care A/S (former Cardiotech ApS)

2002-
Co-founder and chairman of the board of OBI ApS. OBI developes methods for interpretation of blood gas, metabolic and electrolyte measurements.

2000-2005
Co-founder and chairman of the board of Cardiotech ApS. Cardiotech develops methods for diagnosis and treatment in the area of cardiovascular and pulmonary diseases.

1997-1999
Co-founder and chairman of the board of Cephalon A/S. Cephalon sells diagnostic equipment, primarily for neurophysiology, in Denmark and Sweden.

1989-1992
Co-founder and member of the board of Hugin Expert A/S, which develops and markets the Hugin shell for expert systems.

1981-
Co-founder and chairman of the board of Judex Datasystems A/S. Judex produces hardware and software for biomedical applications.

1975-1977
Co-founder and member of the board of the public company Danish Data Electronics A/S.

Scientific societies

2008-
Chairman of the Technical Committee for Modelling and Control in Biomedical Systems (MCBMS) under the International Federation of Automatic Control (IFAC)

2006-
Vicechair of the Technical Committee for Modelling and Control in Biomedical Systems (MCBMS) under the International Federation of Automatic Control (IFAC)

1999-2001
President of the European Society for Artificial Intelligence in Medicine.

1992-2004
Vicepresident of the Danish Society for Biomedical Engineering.

1990-2004
Member of the board of the Danish Society for Biomedical Engineering.

1989- Founding member of the board of the European Society for Artificial Intelligence in Medicine.

Conference organization

2009
Chairman of 7th Ifac Symposium on Modelling and Control in Biomedical Systems (including Biological Systems)

2007
Member of the organizing committee for the bi-annual conference Artificial Intelligence in Medicine, (AIME 07) ,

Amsterdam, The Netherlands

2005-
Member of the International Program Committee for the International Association of Science and Technology for Development (IASTED), Innsbruck, Austria

2005
Member of the Organizing Committee of European Society for Computing and Technology in Anaesthesia and Intensive Care(ESTAIC)

2005
Member of the organizing committee for the bi-annual conference Artificial Intelligence in Medicine, (AIME 05) Aberdeen, Scotland

2003
Member of the organizing committee for the bi-annual conference Artificial Intelligence in Medicine, (AIME 03) Cyprus

2001
Member of the organizing committee for the bi-annual conference Artificial Intelligence in Medicine, Europe (AIME 01), Cascais, Portugal

2000
Chairman of the symposium on Computers in Diabetes, Israel (CID 2000)

2000
Member of the Scientific Committee of the 4th IFAC Symposium on Modelling and Control in Biomedical Systems, Karlsburg, Germany

1999
Chairman of the conference Artificial Intelligence in Medicine, Europe (AIMDM'99), Aalborg

1998
Chairman of the symposium on Computers in Diabetes, Barcelona (CID 98)

1997
Member of the program committee for the bi-annual conference Artificial Intelligence in Medicine, Europe (AIME 97), Grenoble

1996
Chairman of the symposium on Computers in Diabetes, Graz (CID 96)

1995
Member of the program committee for the bi-annual conference Artificial Intelligence in Medicine, Europe (AIME 95), Pavia

1994
Chairman of the symposium on Computers in Diabetes, Düsseldorf (CID 94)

1993
Chairman of the program committee for the conference Artificial Intelligence in Medicine, Europe (AIME 93)

1992
Member of the organizing committee of the 5th International Conference on Computerized and Quantitative EMG 1993, Hamilton, Canada

1992
Member of the organizing committee for the symposium on Computers in Diabetes, Karlsbad, Tchechoslovakia

1991
Member of the program committee for the bi-annual conference Artificial Intelligence in Medicine, Europe (AIME 91)

1990
Chairman of the Scientific Programme Committee of the 8th Nordic Meeting on Medical and Biological Engineering, Aalborg

1990
Member of the organizing committee of the 4th International Conference on Computerized and Quantitative EMG, Mainz, Germany

1989
Member of the program committee for the bi-annual conference Artificial Intelligence in Medicine, Europe (AIME 89), London

1988
Member of the organizing committee of the 3rd International Conference on Computerized and Quantitative EMG, Cyprus

International journals

Member of the editorial board of:
1999- Methods of Information in Medicine
1996- Diabetes, Nutrition and Metabolism
1994 Yearbook of Medical Informatics 94

Reviewer for the international journals:
Artificial Intelligence in Medicine, Computer Methods and Programs in Biomedicine, IEEE Transactions on Medical and Biological Engineering, International Journal of Biomedical Computing, Journal of Intelligent Systems, Medical and Biological Engineering and Computing, Medical Engineering, Physics and Medical Informatics.

Honorary appointments and research awards

2011
BrainsBusiness Award

1992-
Appointed Senior Visiting Fellow at City University, London

1985
Honorary research award from "Civilingeniør A. R. Angelo's legat"

Supervision

Steen Andreassen has been supervisor for about 20 Ph.D. Students, advisor to about 10 postdocs and is currently supervising 3 Ph.D. Students.

Publications

During the period 1985-2011 Steen Andreassen published 90 peer reviewed journal articles and 317 publications in total.

de Watteville A, Pielmeier U, Di Marco M, Gayet-Ageron A, Siegenthaler N, Parel N et al. **Glucosafe 2—A new tool for nutritional management and insulin-therapy in the intensive care unit: Randomized controlled study (the Glucosafe 2 protocol)**. PLOS ONE. 2025 Mar;20(3):e0316624. doi: 10.1371/journal.pone.0316624

Shastri L, Thomsen LP, Toftegaard M, Tygesen GB, Weinreich UM, Rychwicka-Kielek BA et al. **The use of venous blood gas in assessing arterial acid-base and oxygenation status - an analysis of aggregated data from multiple studies evaluating the venous to arterial conversion (v-TAC) method**. Expert review of respiratory medicine. 2024;18(7):553-559. Epub 2024 Jul 15. doi: 10.1080/17476348.2024.2378021

Pielmeier US, de Watteville A, Parel N, Siegenthaler N, Primmaz S, Skripkina E et al. **Glucosafe 2 - A new medical device to guide healthcare professionals with glucose control and nutritional therapy: Predictive accuracy of blood glucose levels in a retrospective mixed ICU cohort**. Clinical Nutrition ESPEN. 2023 Dec;58:694-695. LB15-T. doi: 10.1016/j.clnesp.2023.09.783

Morris AH, Horvat C, Stagg B, Grainger DW, Lanspa M, Orme J et al. **Computer clinical decision support that automates personalized clinical care: a challenging but needed healthcare delivery strategy**. Journal of the American Medical Informatics Association. 2022 Dec 13;30(1):178-194. Epub 2022 Sept 19. doi: 10.1093/jamia/ocac143

Morris AH, Stagg B, Lanspa M, Orme J, Clemmer TP, Weaver LK et al. **Enabling a learning healthcare system with automated computer protocols that produce replicable and personalized clinician actions**. Journal of the American Medical Informatics Association. 2021 Jun 12;28(6):1330-1344. Epub 2021 Feb 16. doi: 10.1093/jamia/ocaa294

de Watteville A, Pielmeier U, Graf S, Siegenthaler N, Plockyn B, Andreassen S et al. **Usability study of a new tool for nutritional and glycemic management in adult intensive care: Glucosafe 2**. Journal of Clinical Monitoring and Computing. 2021;35(3):525-535. Epub 2020 Mar 27. doi: 10.1007/s10877-020-00502-1

Andreassen S, Møller JK, Eliakim-Raz N, Lisby G, Ward L. **A comparison of predictors for mortality and bacteraemia in patients suspected of infection**. BMC Infectious Diseases. 2021 Aug 23;21(1):864. doi: 10.1186/s12879-021-06547-0

Karbing DS, Pielmeier US, Thomsen LP, Andreassen S, Rees SE. **Medicin og kunstig intelligens: Glem ikke det, vi allerede ved**. Medicoteknik. 2020 Feb;7:20-22.

Andreassen S, Pielmeier US. **Glycaemic control in the ICU – where are we today**. Journal für Anästhesie und Intensivbehandlung . 2019;(2):3-7.

Ward L, Andreassen S, Astrup JJ, Rahmani Z, Fantini M, Sambri V. **Clinical- vs. model-based selection of patients suspected of sepsis for direct-from-blood rapid diagnostics in the emergency department: a retrospective study**. European Journal of Clinical Microbiology & Infectious Diseases. 2019 Aug;38(8):1515-1522. Epub 2019 May 11. doi: 10.1007/s10096-019-03581-4

Ward L, Møller JK, Eliakim-Raz N, Andreassen S. **Prediction of Bacteraemia and of 30-day Mortality Among Patients with Suspected Infection using a CPN Model of Systemic Inflammation**. IFAC-PapersOnLine. 2018 Jan 1;51(27):116-121. doi: 10.1016/j.ifacol.2018.11.657

Ward LM, Andreassen HS, inventors. **A CPN-based tool for the stratification of illness severity in patients suspected of sepsis**. WO/2017/036482 . 2017.

Ward L, Paul M, Andreassen S. **Automatic learning of mortality in a CPN model of the systemic inflammatory response syndrome**. Mathematical Biosciences. 2017;284:12-20. doi: 10.1016/j.mbs.2016.11.004

Pielmeier U, Andreassen S. **VCO2 calorimetry is a convenient method for improved assessment of energy expenditure in the intensive care unit**. Critical Care. 2016;20:224. doi: 10.1186/s13054-016-1397-z

Wong AF, Pielmeier U, Haug PJ, Andreassen S, Morris AH. **An *in silico* method to identify computer-based protocols worthy of clinical study: an insulin infusion protocol use case**. Journal of the American Medical Informatics Association. 2016;23(2):283-288. doi: 10.1093/jamia/ocv067

Sanden L, Paul M, Leibovici L, Andreassen S. **Quantifying the associations between antibiotic exposure and resistance: a step towards personalised antibiograms**. European Journal of Clinical Microbiology & Infectious Diseases. 2016;35(12):1989-1996. doi: 10.1007/s10096-016-2751-4

Rousing ML, Hahn-Pedersen MH, Andreassen S, Pielmeier U, Preiser JC. **Energy expenditure in critically ill patients estimated by population-based equations, indirect calorimetry and CO2-based indirect calorimetry**. Annals of Intensive Care. 2016;6:16. doi: 10.1186/s13613-016-0118-8

Dickstein Y, Geffen Y, Andreassen S, Leibovici L, Paul M. **Predicting antibiotic resistance in urinary tract infection patients with prior urine cultures**. Antimicrobial Agents and Chemotherapy. 2016;60(8):4717-4121. doi: 10.1128/AAC.00202-16

Ward LM, Andreassen HS. **A descriptive meta-analysis of CRP for distinguishing between aetiology and severity of inflammation**. 2015. Abstract from European Congress of Clinical Microbiology and Infectious Diseases, ECCMID, Copenhagen, Denmark.

Sanden LR, Paul M, Leibovici L, Andreassen S. **Effect of previous antibiotic treatment on susceptibility to antibiotics in Gram-negative bacteria**. 2015. Abstract from European Congress of Clinical Microbiology and Infectious Diseases, ECCMID, Copenhagen, Denmark.

Ward LM, Andreassen HS. **A descriptive meta-analysis of CRP for distinguishing between aetiology and severity of inflammation**. 2015. Poster presented at European Congress of Clinical Microbiology and Infectious Diseases, ECCMID, Copenhagen, Denmark.

Ward LM, Andreassen S. **A Bayesian approach to model-development: automatic learning for tuning predictive performance**. In 9th IFAC Symposium on Biological and Medical Systems BMS 2015, 31 August-2 September 2015, Berlin, Germany. IFAC Publisher. 2015. p. 481-486. (IFAC-PapersOnLine; No. 20, Vol. 48). doi: 10.1016/j.ifacol.2015.10.187

Rousing ML, Pielmeier U, Andreassen HS. **Stability of the insulin–glucose feedback loop in Glucosafe: a comparison of pancreas models**. Biomedical Signal Processing and Control. 2015;22:155-160. doi: 10.1016/j.bspc.2015.06.013

Andreassen S, Zalounina A, Paul M, Sanden L, Leibovici L. **Interpretative reading of the antibiogram: a semi-naïve Bayesian approach**. Artificial Intelligence in Medicine. 2015;65(3):209-217. doi: 10.1016/j.artmed.2015.08.004

Ward LM, Mogensen ML, Paul M, Leibovici L, Andreassen S. **A Bayesian approach to model-development: design of continuous distributions for infection variables**. In 19th World Congress of The International Federation of Automatic Control, IFAC, 24-29 August 2014, Cape Town, South Africa. IFAC Publisher. 2014. p. 5653-5658

Rousing ML, Pielmeier U, Andreassen S. **Stability analysis of insulin-glucose feedback in the Glucosafe pancreas model of endogenous insulin production**. In 19th World Congress of The International Federation of Automatic Control, IFAC, 24-29 August 2014, Cape Town, South Africa. IFAC Publisher. 2014. p. 10959-10963

Pielmeier U, Rousing ML, Andreassen S. **Pancreatic secretion, hepatic extraction, and plasma clearance of insulin from steady-state insulin and C-peptide measurements in critically ill patients**. In 19th World Congress of The International Federation of Automatic Control, IFAC, 24-29 August 2014, Cape Town, South Africa. IFAC Publisher. 2014. p. 10964-10969

Karbing DS, Kjærgaard S, Andreassen S, Rees SE. **Mathematical modelling of pulmonary gas exchange**. In Carson E, Cobelli C, editors, Modelling Methodology for Physiology and Medicine. 2 ed. Elsevier. 2014. p. 281-309. (Elsevier Insights). doi: 10.1016/b978-0-12-411557-6.00013-6

Rousing ML, Simonsen MH, Andreassen S, Pielmeier U, Preiser JC. **Comparison of resting energy expenditure estimated using predictive equations and measured using indirect calorimetry in critically ill patients**. Intensive Care Medicine. 2014;40(Suppl. 1):S82-S83, No. 0277.

Pielmeier U, Rousing ML, Andreassen S. **A model of changes in energy expenditure to specify daily caloric intake targets in sepsis and trauma patients**. Intensive Care Medicine. 2014;40(Suppl. 1):S83, No. 0279.

Andreassen S, Desaive T, Karbing DS. **Modelling in anaesthesia and intensive care: A special section including papers from IFAC's 8. Symposium on Medical and Biological Systems in Budapest 2012**. Journal of Clinical Monitoring and Computing. 2014;28(6):499-500. doi: 10.1007/s10877-014-9637-8

Rousing ML, Pielmeier U, Andreassen S. **Evaluating modifications to the Glucosafe decision support system for tight glycemic control in the ICU using virtual patients**. Biomedical Signal Processing and Control. 2014;12:54-61. doi: 10.1016/j.bspc.2013.12.008

Ward LM, Knudsen JD, Mogensen M, Paul M, Leibovici L, Zalounina A et al.. **Prediction of bacteraemia using the Treat decision support system**. 2013. Abstract from European Congress of Clinical Microbiology and Infectious Diseases, ECCMID, Berlin, Germany.

Ward LM, Knudsen JD, Mogensen M, Paul M, Leibovici L, Zalounina A et al.. **Prediction of bacteraemia using the Treat decision support system**. 2013. Poster presented at European Congress of Clinical Microbiology and Infectious Diseases, ECCMID, Berlin, Germany.

Karbing DS, Thomsen LP, Moesgaard J, Andreassen S, Toft E, Thorgaard P et al. **Model-based measurement of gas exchange in healthy subjects using ALPE Essential: influence of age, posture and gender**. In 35th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, IEEE EMBS, 3-7 July 2013, Osaka, Japan. IEEE Press. 2013. p. 2441-2444. (IEEE Engineering in Medicine and Biology Society. Conference Proceedings). doi: 10.1109/EMBC.2013.6610033

Ward LM, Møller J, Østergaard C, Mogensen M, Paul M, Leibovici L et al. **Prediction of bacteraemia in a low-bacteraemia-prevalence cohort using the Treat decision support system**. Minimally Invasive Therapy and Allied Technologies. 2013;22(Suppl. 1):21-22, No. 38.

Rousing ML, Pielmeier U, Andreassen S. **A biphasic pancreas model for the Glucosafe decision support system**. Minimally Invasive Therapy and Allied Technologies. 2013;22(Suppl. 1):22, No. 39.

Pielmeier U, Andreassen S, Rousing ML, Streenfeldt Nielsen B, Christensen PH. **The role of pancreatic insulin secretion rate in intravenous insulin therapy in the ICU**. Critical Care Medicine. 2013;41(12, Suppl. 1):A245, No. 976. doi: 10.1097/01.ccm.0000440214.27330.f4

Thomsen LP, Karbing DS, Smith BW, Murley D, Weinreich UM, Kjærgaard S et al. **Clinical refinement of the automatic lung parameter estimator (ALPE)**. Journal of Clinical Monitoring and Computing. 2013;27(3):341-350. doi: 10.1007/s10877-013-9442-9

Karbing DS, Andreassen S, Lindholt C, Rees SE, inventors. **The automatic lung parameter estimator for measuring oxygen and carbon dioxide gas exchange**. WO2012069051. 2012.

Riddersholm SJ, Preiser JC, Rousing ML, Pielmeier U, Andreassen S. **Lowering of blood glucose and its variability by computerized decision support**. 2012. Abstract from Clinical Diabetes Technology Meeting, Los Angeles, CA, United States.

Rousing ML, Pielmeier U, Andreassen S. **Virtual testing of decision support for tight glycemic control in the ICU**. In Benyo B, Andreasen S, Feng DD, Carson E, Chase JG, Kovács L, editors, 8th IFAC Symposium on Biological and Medical Systems (2012). Elsevier. 2012. p. 408-413. (Elsevier IFAC Publications / IFAC Proceedings series, Vol. 8). doi: 10.3182/20120829-3-HU-2029.00074

Mogensen ML, Karbing DS, Steimle KL, Rees SE, Andreassen S. **A stratified model of pulmonary gas exchange**. In Benyo B, Andreasen S, Feng DD, Carson E, Chase JG, Kovács L, editors, 8th IFAC Symposium on Biological and Medical Systems (2012). Elsevier. 2012. p. 512-517. (Elsevier IFAC Publications / IFAC Proceedings series, Vol. 8). doi: 10.3182/20120829-3-HU-2029.00053

Andreassen S. **From model to medical device: the life cycle of medical decision support systems**. In 8th IFAC Symposium on Biological and Medical Systems, 29-31 August 2012, Budapest, Hungary [CD-ROM]. Elsevier. 2012. p. Article No. A-0119

Tygesen G, Matzen H, Grønkjær K, Uhrenfeldt L, Andreassen S, Gaardboe O et al. **Mathematical arterialization of venous blood in emergency medicine patients**. European Journal of Emergency Medicine. 2012;19(6):363-372. doi: 10.1097/MEJ.0b013e32834de4c6

Pielmeier U, Rousing ML, Andreassen S, Streenfeldt Nielsen B, Christensen PH. **Decision support for optimized blood glucose control and nutrition in a neurotrauma intensive care unit: preliminary results of clinical advice and prediction accuracy of the Glucosafe system**. Journal of Clinical Monitoring and Computing. 2012;26(4):319-328. doi: 10.1007/s10877-012-9364-y

Karbing DS, Allerød C, Thomsen LP, Espersen K, Thorgaard P, Andreassen S et al. **Retrospective evaluation of a decision support system for controlled mechanical ventilation**. Medical & Biological Engineering & Computing. 2012;50(1):43-51. doi: 10.1007/s11517-011-0843-y

Kristensen SR, Andreassen S, Rees SE, inventors. **Method for estimation of non-bicarbonate buffering, strong ion gap, corrected anion gap, plasma protein or albumin concentration**. WO2011103881 (A1). 2011.

Pielmeier U, Andreassen S, Nielsen BS, Haure P. **Interim safety assessment of glycemic control with the GLUCOSAFE system after traumatic brain injury or subarachnoid hemorrhage**. In Eleventh Annual Diabetes Technology Meeting, 27-29 October 2011, Burlingame, CA, USA. Diabetes Technology Society. 2011. p. A150

Mogensen ML, Karbing DS, Andreassen S. **The effect of arteriolar resistance on perfusion distribution in a model of the pulmonary perfusion**. In Bittanti S, Cenedese A, Zampieri S, editors, Proceedings of the 18th World Congress of the International Federation of Automatic Control, 28 August-2 September 2011, Milano, Italy. IFAC Publisher. 2011. p. 5018-5023 doi: 10.3182/20110828-6-IT-1002.02805

Thomsen LP, Smith BW, Kjærgaard S, Thorgaard P, Toft E, Andreassen S et al. **The current status of the automatic lung parameter estimator**. Journal of Clinical Monitoring and Computing. 2011;25(1):35-36, No. 29. doi: 10.1007/s10877-011-9276-2

Karbing DS, Kjærgaard S, Andreassen S, Espersen K, Rees SE. **Minimal modeling of pulmonary gas exchange of oxygen and carbon dioxideΓçömodeling complexity required in intensive care patients**. Intensive Care Medicine. 2011;37(Suppl. 1):S102, No. 0386. doi: 10.1007/s00134-011-2322-1

Allerød C, Karbing DS, Thorgaard P, Andreassen S, Kjærgaard S, Rees SE. **Use of the invent system for standardized quantification of clinical preferences towards mechanical ventilator settings**. Journal of Clinical Monitoring and Computing. 2011 Apr 11;25(1):22-24. 17. doi: 10.1007/s10877-011-9276-2

Rees SE, Carson ER, Feng DD, Andreassen S. **Introduction for special issue "Cardio-Pulmonary Modelling"**. Computer Methods and Programs in Biomedicine. 2011;101(2):107-108. doi: 10.1016/j.cmpb.2011.01.001

Rees SE, Carson ER, Feng DD, Andreassen S. **Modelling and control in biomedical systems: introduction**. Computer Methods and Programs in Biomedicine. 2011;104(2):27-28. doi: 10.1016/j.cmpb.2011.09.004

Feng DD, Andreassen S, Rees SE. **Extended selected papers from the 7th IFAC Symposium on Modelling and Control in Biomedical Systems (MCBMS'09)**. Biomedical Signal Processing and Control. 2011;6(1):1-2. doi: 10.1016/j.bspc.2010.12.002

Carson ER, Rees SE, Andreassen S, Feng DD. **Introduction**. Computer Methods and Programs in Biomedicine. 2011;102(2):91-93. doi: 10.1016/j.cmpb.2010.12.013

Rees SE, Karbing DS, Allerød C, Toftegaard M, Thorgaard P, Toft E et al. **The Intelligent Ventilator project: application of physiological models in decision support**. Lecture Notes in Computer Science. 2011;6747:149-158. doi: 10.1007/978-3-642-22218-4_19

Andreassen S, Karbing DS, Pielmeier U, Rees SE, Zalounina A, Sanden LR et al. **Model-based medical decision support: A road to improved diagnosis and treatment?** International Federation for Medical and Biological Engineering Proceedings . 2011;34:257-260. doi: 10.1007/978-3-642-21683-1_65

Steimle KL, Mogensen ML, Karbing DS, de la Serna JB, Andreassen S. **A model of ventilation of the healthy human lung**. Computer Methods and Programs in Biomedicine. 2011;101(2):144-155. doi: 10.1016/j.cmpb.2010.06.017

Poulsen P, Karbing DS, Rees SE, Andreassen S. **Tidal breathing model describing end-tidal, alveolar, arterial and mixed venous CO2 and O2**. Computer Methods and Programs in Biomedicine. 2011;101(2):166-172. doi: 10.1016/j.cmpb.2010.03.020

Mogensen ML, Steimle KL, Karbing DS, Andreassen S. **A model of perfusion of the healthy human lung**. Computer Methods and Programs in Biomedicine. 2011;101(2):156-165. doi: 10.1016/j.cmpb.2010.06.020

Karbing DS, Kjærgaard S, Andreassen S, Espersen K, Rees SE. **Minimal model quantification of pulmonary gas exchange in intensive care patients**. Medical Engineering & Physics. 2011;33(2):240-248. doi: 10.1016/j.medengphy.2010.10.007

Allerød C, Karbing DS, Thorgaard P, Andreassen S, Kjærgaard S, Rees SE. **Variability of preference toward mechanical ventilator settings: A model-based behavioral analysis**. Journal of Critical Care. 2011;26(6):637.e5-637.e12. doi: 10.1016/j.jcrc.2011.01.006

Pielmeier U, Boudreau S, Andreassen S. **A decision-theoretic approach to consistent tight glycemic control in critical care patients**. In UKACC International Conference on Control, CONTROL 2010, 7-10 September 2010, Coventry, UK [CD-ROM]. 2010. p. 839-844

Mogensen ML, Thomsen LP, Karbing DS, Steimle KL, Zhao Y, Rees SE et al. **A mathematical physiological model of the dynamics of pulmonary ventilation**. In Proceedings of the UKACC International Conference on Control, CONTROL 2010 [CD-ROM]. 2010. p. 734-739

Rees SE, Kjærgaard S, Andreassen S, Hedenstierna G. **A comparison of the MIGET and a simple model of pulmonary gas exchange**. The FASEB Journal. 2010;24:1063.4.

Rees SE, Toftegaard M, Hansen A, Harving H, Kristensen SR, Andreassen S. **Clinical application of acid-base models: calculation of arterial acid-base status from peripheral venous blood**. Journal of Clinical Monitoring and Computing. 2010;24(1):25-26, No. 22. doi: 10.1007/s10877-009-9211-y

Rees SE, Klæstrup E, Handy J, Andreassen S, Kristensen SR. **Evaluation of a mathematical model of the acid-base chemistry of blood**. The FASEB Journal. 2010;24:815.16.

Karbing DS, Allerød C, Thorgaard P, Andreassen S, Kjærgaard S, Rees SE. **INVENT - a decision support system for managing inspired oxygen: prospective evaluation in an intensive care unit**. Journal of Clinical Monitoring and Computing. 2010;24(1):17, No. 14. doi: 10.1007/s10877-009-9211-y

Rees SE, Klæstrup E, Handy J, Andreassen S, Kristensen SR. **Mathematical modelling of the acid-base chemistry and oxygenation of blood: a mass balance, mass action approach including plasma and red blood cells**. European Journal of Applied Physiology. 2010;108(3):483-494. doi: 10.1007/s00421-009-1244-x

Rees SE, Kjærgaard S, Andreassen S, Hedenstierna G. **Reproduction of inert gas and oxygenation data: a comparison of the MIGET and a simple model of pulmonary gas exchange**. Intensive Care Medicine. 2010;36(12):2117-2124. doi: 10.1007/s00134-010-1981-7

Pielmeier U, Andreassen S, Nielsen BS, Chase JG, Christensen PH. **A simulation model of insulin saturation and glucose balance for glycemic control in ICU patients**. Computer Methods and Programs in Biomedicine. 2010;97(3):211-222. doi: 10.1016/j.cmpb.2009.06.004

Pielmeier U, Andreassen S, Juliussen BN, Chase JG, Nielsen BS, Haure P. **The Glucosafe system for tight glycemic control in critical care: a pilot evaluation study**. Journal of Critical Care. 2010;25(1):97-104. doi: 10.1016/j.jcrc.2009.10.003

Leibovici L, Paul M, Andreassen S. **Balancing the benefits and costs of antibiotic drugs: the TREAT model**. Clinical Microbiology and Infection. 2010;16(12):1736-1739. doi: 10.1111/j.1469-0691.2010.03330.x

Karbing DS, Allerød C, Thorgaard P, Carius AM, Frilev L, Andreassen S et al. **Prospective evaluation of a decision support system for setting inspired oxygen in intensive care patients**. Journal of Critical Care. 2010;25(3):367-374. doi: 10.1016/j.jcrc.2009.12.013

Chase JG, Mayntzhusen K, Docherty PD, Andreassen S, McAuley KA, Lotz TF et al. **A three-compartment model of the C-peptide–insulin dynamic during the DIST test**. Mathematical Biosciences. 2010;228(2):136-146. doi: 10.1016/j.mbs.2010.09.001

Andreassen S, Steimle KL, Mogensen ML, de la Serna JB, Rees SE, Karbing DS. **The effect of tissue elastic properties and surfactant on alveolar stability**. Journal of Applied Physiology. 2010;109(5):1369-1377. doi: 10.1152/japplphysiol.00844.2009

Lindholt C, Andreassen S, Smith BW, Sørensen DØ, inventors. **A gas mixing device for an air-way management system**. WO2009003488 (A2). 2009.

Poulsen P, Karbing DS, Rees SE, Andreassen S. **Tidal breathing model describing end-tidal, alveolar, arterial and mixed venous CO_2 and O_2**. In 7th IFAC Symposium on Modelling and Control in Biomedical Systems (including Biological Systems) MCBMS'09 - Proceedings. PART 1 ed. IFAC Secretariat. 2009. p. 139-144. (IFAC Proceedings Volumes (IFAC-PapersOnline); No. PART 1, Vol. 7). doi: 10.3182/20090812-3-DK-2006.0063

Rees SE, (ed.), Feng DD, (ed.), Carson ER, (ed.), Andreassen S, (ed.). **Proceedings, the 7th IFAC Symposium on Modelling and Control in Biomedical Systems (including Biological Systems): MCBMS 2009, 12-14 August 2009, Aalborg, Denmark**. Elsevier, 2009. (Elsevier IFAC Publications / IFAC Proceedings series).

Andreassen S, Zalounina A, Kariv G, Leibovici L, Paul M. **Computerised antibiotic susceptibility prediction: accounting for prior knowledge and cross-resistance**. Clinical Microbiology and Infection. 2009;15(Suppl. 4 [CD-ROM]).

Steimle KL, Mogensen ML, Karbing DS, Bernardino de la Serna J, Smith BW, Vacek O et al. **A mathematical physiological model of the pulmonary ventilation**. Elsevier IFAC Publications / IFAC Proceedings series. 2009;222-227.

Poulsen P, Karbing DS, Rees SE, Andreassen S. **Tidal breathing model describing end-tidal, alveolar, arterial and mixed venous CO_2 and O_2**. Elsevier IFAC Publications / IFAC Proceedings series. 2009;139-144.

Pielmeier U, Andreassen S, Nielsen BS, Hann CE, Chase JG, Haure P. **Comparison of identification methods of a time-varying insulin sensitivity parameter in a simulation model of glucose metabolism in the critically ill**. Elsevier IFAC Publications / IFAC Proceedings series. 2009;67-72.

Mogensen ML, Steimle KL, Karbing DS, Andreassen S. **A mathematical physiological model of the pulmonary capillary perfusion**. Elsevier IFAC Publications / IFAC Proceedings series. 2009;157-162.

Andreassen S, Zalounina A, Paul M, Leibovici L. **Design of a method for prediction of susceptibility to antimicrobials**. Elsevier IFAC Publications / IFAC Proceedings series. 2009;313-318.

Andreassen S, Zalounina A, Pedersen KB, Gade J, Paul M, Leibovici L. **Steps on the road to clinical application of decision support: example TREAT**. Lecture Notes in Computer Science. 2009;5651:166-170. doi: 10.1007/978-3-642-02976-9_22

Toftegaard M, Rees SE, Andreassen S. **Evaluation of a method for converting venous values of acid-base and oxygenation status to arterial values**. Emergency Medicine Journal. 2009;26(4):268-272. doi: 10.1136/emj.2007.052571

Moesgaard J, Kristensen JH, Malczynski J, Holst-Hansen C, Rees SE, Murley D et al. **Can new pulmonary gas exchange parameters contribute to evaluation of pulmonary congestion in left-sided heart failure?** Canadian Journal of Cardiology. 2009;25(3):149-155.

Kofoed K, Zalounina A, Andersen O, Lisby G, Paul M, Leibovici L et al. **Performance of the TREAT decision support system in an environment with a low prevalence of resistant pathogens**. Journal of Antimicrobial Chemotherapy. 2009;63(2):400-404. doi: 10.1093/jac/dkn504

Chowers MY, Gottesman BS, Leibovici L, Pielmeier U, Andreassen S, Paul M. **Reporting of adverse events in randomized controlled trials of highly active antiretroviral therapy: systematic review**. Journal of Antimicrobial Chemotherapy. 2009;64(2):239-250. doi: 10.1093/jac/dkp191

Chase JG, Andreassen S, Pielmeier U, Hann CE, McAuley KA, Mann JI. **A glucose-insulin pharmacodynamic surface modeling validation and comparison of metabolic system models**. Biomedical Signal Processing and Control. 2009;4(4):355-363. doi: 10.1016/j.bspc.2009.04.002

Andreassen S, Zalounina A, Leibovici L, Paul M. **Learning susceptibility of a pathogen to antibiotics using data from similar pathogens**. Methods of Information in Medicine. 2009;48(3):242-247. doi: 10.3414/ME9226

Chase JG, Andreassen S, Pielmeier U. **Model-based insulin sensitivity and pharmacodynamic surfaces**. In Eighth Annual Diabetes Technology Meeting, 13-15 November 2008, Bethesda, Maryland, USA. 2008. p. A32

Pielmeier U, Andreassen S, Chase JG. **When to measure blood glucose: cohort-specific glycaemic control**. In Hierlemann A, editor, Proceedings of the Sixth IASTED International Conference on Biomedical Engineering, 13-15 February 2008, Innsbruck, Austria [CD-ROM]. ACTA Press. 2008. p. 178-181, No. 601-065

Andreassen S, Pielmeier U, Chase G. **Receptor-based models of insulin saturation dynamics**. In Hierlemann A, editor, Proceedings of the Sixth IASTED International Conference on Biomedical Engineering, 13-15 February 2008, Innsbruck, Austria [CD-ROM]. ACTA Press. 2008. p. 182-186, No. 601-066

Zalounina A, Paul M, Kofoed K, Andreassen S, Leibovici L. **Odds ratios of antimicrobial susceptibility in nosocomial and non-nosocomial infections in environments with low and high prevalence of resistant pathogens**. International Journal of Infectious Diseases. 2008;12(Suppl. 1).

Zalounina A, Kofoed K, Paul M, Lisby G, Leibovici L, Andreassen S et al. **Performance of the TREAT decision support system in an environment with low prevalence of resistant pathogens**. Clinical Microbiology and Infection. 2008;14(s7):S86, No. O399. doi: 10.1111/j.1469-0691.2008.02006.x

Karbing DS, Kjærgaard S, Smith BW, Espersen K, Andreassen S, Rees SE. **Variation in the PaO_2/FiO_2 ratio with FiO_2: is it relevant?** Journal of Clinical Monitoring and Computing. 2008;22(3):250-251. doi: 10.1007/s10877-008-9121-4

Zalounina A, Andreassen S, Leibovici L, Paul M. **Transferability modelling in the TREAT decision support system**. Elsevier IFAC Publications / IFAC Proceedings series. 2008;8097-8102.

Pielmeier U, Chase JG, Andreassen S, Nielsen BS, Haure P, Shaw GM. **Prediction validation of two glycaemic control models in critical care**. Elsevier IFAC Publications / IFAC Proceedings series. 2008;8074-8079.

Karbing DS, Kjærgaard S, Smith BW, Allerød C, Espersen K, Andreassen S et al. **Decision support of inspired oxygen fraction using a model of oxygen transport**. Elsevier IFAC Publications / IFAC Proceedings series. 2008;8080-8084.

Chase JG, Andreassen S, Pielmeier U, Hann CE. **Glucose-insulin pharmacodynamic surface modeling comparison**. Elsevier IFAC Publications / IFAC Proceedings series. 2008;8085-8090.

Toftegaard M, Rees SE, Andreassen S. **Correlation between acid-base parameters measured in arterial blood and venous blood sampled peripherally, from vena cavae superior, and from the pulmonary artery**. European Journal of Emergency Medicine. 2008;15(2):86-91. doi: 10.1097/MEJ.0b013e3282e6f5c5

Starfinger C, Chase JG, Hann CE, Shaw GM, Lambert P, Smith BW et al. **Model-based identification of PEEP titrations during different volemic levels**. Computer Methods and Programs in Biomedicine. 2008;91(2):135-144. doi: 10.1016/j.cmpb.2008.03.005

Starfinger C, Chase JG, Hann CE, Shaw GM, Lambert P, Smith BW et al. **Prediction of hemodynamic changes towards PEEP titrations at different volemic levels using a minimal cardiovascular model**. Computer Methods and Programs in Biomedicine. 2008;91(2):128-134. doi: 10.1016/j.cmpb.2008.03.004

Jensen K, Andreassen S. **Generic causal probabilistic networks: a solution to a problem of transferability in medical decision support**. Computer Methods and Programs in Biomedicine. 2008;89(2):189-201. doi: 10.1016/j.cmpb.2007.10.015

Chase JG, Andreassen S, Jensen K, Shaw GM. **Impact of human factors on clinical protocol performance: a proposed assessment framework and case examples**. Journal of Diabetes Science and Technology. 2008;2(3):409-416.

Allerød C, Rees SE, Rasmussen BS, Karbing DS, Kjærgaard S, Thorgaard P et al. **A decision support system for suggesting ventilator settings: retrospective evaluation in cardiac surgery patients ventilated in the ICU**. Computer Methods and Programs in Biomedicine. 2008;92(2):205-212. doi: 10.1016/j.cmpb.2008.07.001

Zalounina A, Paul M, Andreassen S, Leibovici L. **Time trends in odds ratios of antimicrobial susceptibility in nosocomial and non-nosocomial Gram-negative infections in Israel**. In 17th ECCMID (European Congress of Clinical Microbiology and Infectious Diseases), 25th ICC (International Congress of Chemotherapy), 31 March-3 April 2007, Munich, Germany [CD-ROM]. 2007. p. P1655

Paul M, Nielsen AM, Gafter-Gvili A, Tacconelli E, Andreassen S, Almanasreh N et al. **Beta-lactam alone compared to ß-lactam-macrolide combination therapy for community-acquired pneumonia: prospective, observational study using a propensity score**. In 17th ECCMID (European Congress of Clinical Microbiology and Infectious Diseases), 25th ICC (International Congress of Chemotherapy), 31 March-3 April 2007, Munich, Germany [CD-ROM]. 2007. p. P858

Karbing DS, Kjærgaard S, Smith BW, Espersen K, Andreassen S, Rees SE. **Variation in the PaO_2/FiO_2 ratio with FiO_2: is it relevant?** In Joint SCATA ESCTAIC Scientific Meeting, 21-23 November 2007, London, United Kingdom. 2007. p. 35-36

Smith BW, Rees SE, Karbing DS, Kjærgaard S, Andreassen S. **Quantitative assessment of pulmonary shunt and ventilation-perfusion mismatch without a blood sample**. In Sciences and Technologies for Health, Proceedings of the 29th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, in conjunction with the Biennial Conference of the French Society of Biological and Medical Engineering (SFGBM), 23-26 August 2007, Lyon, France [CD-ROM]. Electrical Engineering/Electronics, Computer, Communications and Information Technology Association. 2007. p. 4255-4258 doi: 10.1109/IEMBS.2007.4353276

Andreassen S, Zalounina A, Leibovici L, Paul M. **Learning susceptibility of a pathogen to antibiotics using data from similar pathogens**. In Working Notes, Intelligent Data Analysis in bioMedicine and Pharmacology, IDAMAP 2007, 8 July 2007. (Workshop at the AIME 2007 Conference). 2007. p. 85-89

Karbing DS, Kjærgaard S, Smith BW, Allerød C, Espersen K, Reiter N et al. **Evaluation of the intelligent ventilator (INVENT) system for optimizing inspired oxygen fraction in intensive care**. Intensive Care Medicine. 2007;33(Suppl. 2):S233, No. 0905.

Karbing DS, Smith BW, Kjærgaard S, Allerød C, Andreassen S, Rees SE. **Examining the effect of positive end-expiratory pressure on gas exchange and lung mechanics**. Journal of Clinical Monitoring and Computing. 2007;21(3):187-188. doi: 10.1007/s10877-007-9074-z

Karbing DS, Smith BW, Rees SE, Andreassen S. **Modelling the relationship between gas exchange and lung mechanics**. Journal of Clinical Monitoring and Computing. 2007;21(3):188-189. doi: 10.1007/s10877-007-9074-z

Zhao Y, Rees SE, Kjærgaard S, Smith BW, Larsson A, Andreassen S. **An automated method for measuring static pressure-volume curves of the respiratory system and its application in healthy lungs and after lung damage by oleic acid infusion**. Physiological Measurement. 2007;28(3):235-247. doi: 10.1088/0967-3334/28/3/001

Zalounina A, Paul M, Leibovici L, Andreassen S. **A stochastic model of susceptibility to antibiotic therapy: the effects of cross-resistance and treatment history**. Artificial Intelligence in Medicine. 2007;40(1):57-63. doi: 10.1016/j.artmed.2006.12.007

Smith BW, Andreassen S, Shaw GM, Jensen PL, Rees SE, Chase JG. **Simulation of cardiovascular system diseases by including the automatic nervous system into a minimal model**. Computer Methods and Programs in Biomedicine. 2007;86(2):153-160. doi: 10.1016/j.cmpb.2007.02.001

Paul M, Nielsen AD, Goldberg E, Andreassen S, Tacconelli E, Almanasreh N et al. **Prediction of specific pathogens in patients with sepsis: evaluation of TREAT, a computerized decision support system**. Journal of Antimicrobial Chemotherapy. 2007;59(6):1204-1207. doi: 10.1093/jac/dkm107

Paul M, Nielsen AM, Gafter-Gvili A, Tacconelli E, Andreassen S, Almanasreh N et al. **The need for macrolides in hospitalised community-acquired pneumonia: propensity analysis**. European Respiratory Journal. 2007;30(3):525-531. doi: 10.1183/09031936.00031007

Leibovici L, Gafter-Gvili A, Paul M, Almanasreh N, Tacconelli E, Andreassen S et al. **Relative tachycardia in patients with sepsis: an independent risk factor for mortality**. QJM - Monthly Journal of the Association of Physicians. 2007;100(10):629-634. doi: 10.1093/qjmed/hcm074

Leibovici L, Paul M, Nielsen AM, Tacconelli E, Andreassen S. **The TREAT project: decision support and prediction using causal probabilistic networks**. International Journal of Antimicrobial Agents. 2007;30(Suppl. 1):93-102. doi: 10.1016/j.ijantimicag.2007.06.035

Karbing DS, Kjærgaard S, Smith BW, Espersen K, Allerød C, Andreassen S et al. **Variation in the PaO_2/FiO_2 ratio with FiO_2: mathematical and experimental description, and clinical relevance**. Critical Care. 2007;11(6). doi: 10.1186/cc6174

Rees SE, Andreassen S, inventors. **Method for converting venous blood values to arterial blood values, system for utilising said method and devices for such system**. US2006105319, WO2004010861. 2006.

Zalounina A, Andreassen S, Paul M, Leibovici L. **A comparison of susceptibility to antibiotics in nosocomial and non-nosocomial infections in a hospital in Israel**. In 16th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), 1-4 April 2006, Nice, France [CD-ROM]. Wiley-Blackwell. 2006. p. No. O303

Nielsen AM, Andreassen S, Paul M, Leibovici L. **Extending observed susceptibilities with predicted susceptibilities based on a retrospective statistical analysis**. In 16th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), 1-4 April 2006, Nice, France [CD-ROM]. Wiley-Blackwell. 2006. p. No. P1300

Fraser A, Paul M, Almanasreh N, Tacconelli E, Frank U, Cauda R et al. **Benefit of appropriate empirical antibiotic treatment: 30-day mortality and duration of hospital stay**. In 16th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), 1-4 April 2006, Nice, France [CD-ROM]. Wiley-Blackwell. 2006. p. No. O440

Andreassen S, Pielmeier U, Vidal L. **A meta-analysis of the frequency of side effects for HAART drugs**. In 16th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), 1-4 April 2006, Nice, France [CD-ROM]. Wiley-Blackwell. 2006. p. No. P623

Smith BW, Andreassen S, Shaw GM, Rees SE, Chase JG. **Cardiovascular system modelling of heart-lung interaction during mechanical ventilation**. In Feng DD, Dubios O, Zaytoon J, Carson E, editors, Proceedings of the 6th IFAC Symposium on Modelling and Control in Biomedical Systems, MCBMS 2006, 20-22 September 2006, Reims, France. Oxford: Elsevier. 2006. p. 453-458

Lotz T, Chase JG, McAuley KA, Lin J, Wong J, Hann CE et al. **Integral-based identification of a physiological insulin and glucose model on euglycaemic clamp and IVGTT trials**. In Preprints of the 14th IFAC Symposium on System Identification, SYSID 2006, 29-31 March 2006, Newcastle, Australia [CD-ROM]. 2006. p. 463-468

Jensen K, Andreassen S. **Generic modeling of causal probabilistic networks in medical decision support**. In Feng DD, Dubios O, Zaytoon J, Carson E, editors, Proceedings of the 6th IFAC Symposium on Modelling and Control in Biomedical Systems, MCBMS 2006, 20-22 September 2006, Reims, France. Oxford: Elsevier. 2006. p. 537-542

Hann CE, Chase JG, Shaw GM, Andreassen S, Smith BW. **Clinical cardiovascular identification with limited data and the need for fast forward simulation**. In Feng DD, Dubios O, Zaytoon J, Carson E, editors, Proceedings of the 6th IFAC Symposium on Modelling and Control in Biomedical Systems, MCBMS 2006, 20-22 September 2006, Reims, France. Oxford: Elsevier. 2006. p. 69-74

Hann CE, Andreassen S, Smith BW, Shaw GM, Chase JG, Jensen PL. **Identification of time varying cardiac disease state using a minimal cardiac model with reflex actions**. In Preprints of the 14th IFAC Symposium on System Identification, SYSID 2006, 29-31 March 2006, Newcastle, Australia [CD-ROM]. 2006. p. 475-480

Zhao Y, Rees SE, Kjaergaard S, Andreassen S. **Computer controlled estimation of nonlinear respiratory mechanics using clinically available measurements**. Journal of Clinical Monitoring and Computing. 2006;20(2):121-122.

Zalounina A, Andreassen S, Paul M, Almanasreh N, Frank U, Tacconelli E et al. **A comparison of susceptibility to antibiotics in nosocomial and non-nosocomial infections in Israel, Germany and Italy**. International Journal of Infectious Diseases. 2006;10(Suppl.1):331-332.

Smith BW, Rees SE, Christensen TF, Karbing DS, Andreassen S. **Getting the most from clinical data through physiological modelling and medical decision support**. Journal of Clinical Monitoring and Computing. 2006;20(2):128-129.

Andreassen S, Paul M, Tacconelli E, Nielsen AM, Almanasreh N, Frank U et al. **TREAT: a system for balancing antibiotic treatment against development of drug resistance**. Journal of Clinical Monitoring and Computing. 2006;20(2):141.

Wong XW, Chase JG, Shaw GM, Hann CE, Lotz T, Lin J et al. **Model predictive glycaemic regulation in critical illness using insulin and nutrition input: a pilot study**. Medical Engineering & Physics. 2006;28(7):665-681. doi: 10.1016/j.medengphy.2005.10.015

Rees SE, Toftegaard M, Andreassen S. **A method for calculation of arterial acid-base and blood gas status from measurements in the peripheral venous blood**. Computer Methods and Programs in Biomedicine. 2006;81(1):18-25. doi: 10.1016/j.cmpb.2005.10.003

Rees SE, Kjærgaard S, Andreassen S, Hedenstierna G. **Reproduction of MIGET retention and excretion data using a simple mathematical model of gas exchange in lung damage caused by oleic acid infusion**. Journal of Applied Physiology. 2006;101(3):826-832. doi: 10.1152/japplphysiol.01481.2005

Rees SE, Allerød C, Murley D, Zhao Y, Smith BW, Kjærgaard S et al. **Using physiological models and decision theory for selecting appropriate ventilator settings.** Journal of Clinical Monitoring and Computing. 2006;20(6):421-429. doi: 10.1007/s10877-006-9049-5

Paul M, Andreassen S, Tacconelli E, Nielsen AM, Almanasreh N, Frank U et al. **Improving empirical antibiotic treatment using TREAT, a computerized decision support system: cluster randomized trial**. Journal of Antimicrobial Chemotherapy. 2006;58(6):1238-1245. doi: 10.1093/jac/dkl372

Paul M, Andreassen S, Nielsen AM, Tacconelli E, Almanasreh N, Fraser A et al. **Prediction of bacteremia using TREAT, a computerized decision-support system**. Clinical Infectious Diseases. 2006;42(9):1274-1282.

Fraser A, Paul M, Almanasreh N, Tacconelli E, Frank U, Cauda R et al. **Benefit of appropriate empirical antibiotic treatment: thirty-day mortality and duration of hospital stay**. American Journal of Medicine. 2006;119(11):970-976. doi: 10.1016/j.amjmed.2006.03.034

Frank U, Kleissle EM, Daschner FD, Leibovici L, Paul M, Andreassen S et al. **Multicentre study of antimicrobial resistance and antibiotic consumption among 6,780 patients with bloodstream infections**. European Journal of Clinical Microbiology & Infectious Diseases. 2006;25(12):815-817. doi: 10.1007/s10096-006-0211-2

Zhao Y, Rees SE, Kjærgaard S, Andreassen S. **Simulation of pulmonary pathophysiology during spontaneous ventilation**. In 27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2005, 1-4 September 2005, Shanghai, China. IEEE Signal Processing Society. 2005. p. 383

Smith BW, Rees SE, Tvorup J, Christensen CG, Andreassen S. **Modeling the influence of the pulmonary pressure-volume curve on gas exchange**. In 27th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, EMBC 2005, 1-4 September 2005, Shanghai, China. IEEE Signal Processing Society. 2005. p. 2357-2360

Andreassen S, Leibovici L, Paul M, Nielsen AD, Zalounina A, Kristensen LE et al. **A probabilistic network for fusion of data and knowledge in clinical microbiology**. In Dybowski R, Husmeier D, Roberts S, editors, Probabilistic Modelling in Bioinformatics and Medical Informatics. Berlin: Springer. 2005. p. 451-472. (Advanced information and knowledge processing).

Paul M, Nielsen AD, Tacconelli E, Almanasreh N, Fraser A, Frank U et al. **Prediction of bloodstream infections using TREAT: a causal probabilistic network for diagnosis and treatment of infections**. Clinical Microbiology and Infection. 2005;11(Suppl. 2):558. P1702. doi: 10.1111/j.1469-0691.2005.clm_1134_04.x

Hann CE, Chase JG, Andreassen S, Smith BW, Shaw GM. **Diagnosis using a minimal cardiac model including reflex actions**. Intensive Care Medicine. 2005;31(Suppl. 1):S18, No. 054.

Rees SE, Andreassen S. **Mathematical models of oxygen and carbon dioxide storage and transport: the acid-base chemistry of blood**. Critical Reviews in Biomedical Engineering. 2005;33(3):209-264.

Murley D, Rees SE, Rasmussen BS, Andreassen S. **Decision support of inspired oxygen selection based on Bayesian learning of pulmonary gas exchange parameters**. Artificial Intelligence in Medicine. 2005;34(1):53-63.

Andreassen S, Rees SE. **Mathematical models of oxygen and carbon dioxide storage and transport: interstitial fluid and tissue stores and whole-body transport**. Critical Reviews in Biomedical Engineering. 2005;33(3):265-298.

Tacconelli E, Paul M, Cataldo MA, Almanasreh N, Zalounina A, Nielsen AM et al. **TREAT: a system for balancing antibiotic treatment against development of drug resistance**. In Abstracts 44th Interscience Conference on Antimicrobial Agents and Chemotherapy (ASM's Annual Meeting on Infectious Diseases), 30 October-2 November 2004, Washington, DC, USA. ASM. 2004. p. 325, No. K-352. (Interscience Conference on Antimicrobial Agents and Chemotherapy. Abstracts).

Frank UK, Almanasreh N, Nielsen AM, Andreassen S, Tacconelli E, Cauda R et al. **TREAT: an electronic consultant for the clinical microbiologist**. In Abstracts 44th Interscience Conference on Antimicrobial Agents and Chemotherapy (ASM's Annual Meeting on Infectious Diseases), 30 October-2 November 2004, Washington, DC, USA. ASM. 2004. p. 448, No. O-1627. (Interscience Conference on Antimicrobial Agents and Chemotherapy. Abstracts).

Leibovici L, Paul M, Almanasreh N, Strehlein M, Frank U, Tacconelli E et al. **Results from TREAT-WARD observational study**. 2004.

Frank U, Almanasreh N, Strehlein M, Andreassen S, Zalounina A, Nielsen AM et al. **D10 results of the TREAT-LAB observational study**. 2004. 22 p.

Tacconelli E, Paul M, Cataldo MA, Almanasreh N, Zalounina A, Nielsen AM et al. **A computerized decision support system (TREAT) to reduce inappropriate antibiotic therapy of bacterial infection**. Clinical Microbiology and Infection. 2004;10(Suppl. 3):4, No. O52.

Rees SE, Toftegaard M, Andreassen S. **Calculation of arterial acid-base status from peripheral venous blood**. Journal of Clinical Monitoring and Computing. 2004;18(1):63.

Rees S, Allerød C, Murley D, Kjærgaard S, Andreassen S. **Use of physiological models in selecting ventilator settings**. Journal of Clinical Monitoring and Computing. 2004;18(5-6):423. doi: 10.1007/s10877-005-0703-0

Kjaergaard S, Rees SE, Grønlund J, Nielsen EM, Lambert P, Thorgaard P et al. **Hypoxaemia after cardiac surgery: clinical application of a model of pulmonary gas exchange**. European Journal of Anaesthesiology. 2004;21(4):296-301.

Paul M, Leibovici L, Kristensen B, Andreassen S. **Significance of early trends in patients with bloodstream infections**. In Abstracts, 43rd Interscience Conference on Antimicrobial Agents and Chemotherapy (ASM's Annual Meeting on Infectious Diseases), 14-17 September 2003, Chicago, USA. ASM. 2003. p. No. L-118

Moesgaard J, Malczynski J, Rees SE, Murley D, Andreassen S, Toft E. **Pulmonary gas exchange parameters are easily accessed non-invasively**. In Proceedings at XIX Nordic Congress of Cardiology, 4-6 June 2003, Odense, Denmark. 2003. p. 90

Rees SE, Malczynski J, Korup E, Kjærgaard S, Thorgaard P, Andreassen S et al. **Assessing pulmonary congestion in left sided heart failure using pulmonary gas exchange parameters**. In 25th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, IEEE EMBS, EMBC 2003, 17-21 September 2003, Cancun, Mexico. IEEE Signal Processing Society. 2003. p. 435-438

Rees SE, Toftegaard M, Andreassen S. **Calculation of arterial acid-base status form peripheral venous blood**. In Proceedings of the 14th Annual Meeting of the European Society for Computing and Technology in Anaesthesia and Intensive Care, ESCTAIC 2003, 1-4 October 2003, Berlin, Germany. 2003. p. 45-46

Murley D, Rees SE, Rasmussen BS, Andreassen S. **Bayesian learning of the gas exchange properties of the lung for prediction of arterial oxygen saturation**. In Dojat M, Keravnou E, Barahona P, editors, Artificial Intelligence in Medicine. Proceedings of the 9th Conference on Artificial Intelligence in Medicine in Europe, AIME 2003, October 2003, Protaras, Cyprus: Lecture Notes in Artificial Intelligence. 2780 ed. Springer. 2003. p. 264-273

Andreassen S, Kristensen B, Zalounina A, Leibovici L, Frank U, Schønheyder HC. **Hierarchical dirichlet learning: filling in the thin spots in a database**. In Dojat M, Keravnou E, Barahona P, editors, Artificial Intelligence in Medicine. Proceedings of the 9th Conference on Artificial Intelligence in Medicine in Europe, AIME 2003, October 2003, Protaras, Cyprus: Lecture notes in artificial intelligence. 2780 ed. Springer. 2003. p. 274-283

Andreassen S, Arleth T, Orsini-Federici M, Benedetti MM. **The action profile of subcutaneously injected insulin**. In Proceedings of the Word Congress on Medical Physics and Biomedical Engeneering 2003, August 2003, Sydney, Australia. 2003

Moesgaard J, Malczynski J, Rees SE, Murley D, Andreassen S, Toft E. **Clinical assessment of pulmonary congestion using estimates of gas exchange parameters**. European Heart Journal, Supplement. 2003;24:179.

Allerød C, Rees SE, Rasmussen BS, Kjærgaard S, Andreassen S. **Retrospective evaluation of a system for adjustment of ventilator settings**. Intensive Care Medicine. 2003;29(Suppl. 1):168.

Olesen KG, Andreassen S, Suojanen M. **Modularizing Inference in Large Causal Probabilistic Networks**. International Journal of Intelligent Systems. 2003;18(2):179-191.

Kjærgaard S, Rees SE, Malczynski J, Nielsen JA, Thorgaard P, Toft E et al. **Non-invasive estimation of shunt and ventilation-perfusion mismatch**. Intensive Care Medicine. 2003;29(5):727-734. doi: 10.1007/s00134-003-1708-0

Timi A, Federici MO, Arleth T, Andreassen S, Benedetti MM. **Valutazione di un modello matematico per l'assorbimento dei carboidrati da un pasto misto**. In Proceedings of ULSS 16 Congresso Nazionale: Alimentazione e Diabete : Tradizione e Futuro, 2002. 2002. p. 191

Frank UK, Daschner FD, Leibovici L, Paul M, Andreassen S, Schonheyder HC et al. **Antimicrobial susceptibility patterns of bacteremic isolates from university hospitals in Denmark, Germany, Italy and Israel**. In Abstracts 42nd Interscience Conference on Antimicrobial Agents and Chemotherapy (ASM's Annual Meeting on Infectious Diseases), 27-30 September 2002, San Diego, CA, USA. ASM. 2002. p. No. C2-301

Zalounina A, Kristensen B, Andreassen S, Leibovici L, Frank U, Schoenheyder HC. **How often does the true source of bacteremia remain undetected?** In Proceedings of the 8th Western Pacific Congress of Chemotherapy & Infectious Diseases, 2002, Perth, Australia. 2002. p. 68

Murley D, Rees SE, Rasmussen BS, Andreassen S. **A model based approach to supporting prescription of inspired oxygen fraction**. Journal of Clinical Monitoring and Computing. 2002;17(1):82-83.

Kjærgaard S, Rees SE, Andreassen S. **Automatized bedside estimation of shunt and ventilation perfusion mismatch**. Intensive Care Medicine. 2002;28(Suppl. 1):S53, No. 192.

Federici MO, Arleth T, Andreassen S, Vering T, Akwe J, Celleno R et al. **A decision support system for insulin dose adjustment in type 1 diabetic patients on continuous subcutaneous insulin infusion therapy**. Diabetes Technology & Therapeutics. 2002;4(2):217. doi: 10.1089/15209150260007444

Federici MO, Arleth T, Vering T, Akwe J, Celleno R, Ferolla P et al. **Impatto di unsistema di supporto decisionale (SSD) per la gestione della terapia insulinica infusionale continua sottocutanea (CSII) sul controllo mebolico in soggetti affetti da diabete mellito tipo 1**. Il Diabete. 2002;14(Suppl. 1):C4.

Rees SE, Kjærgaard S, Thorgaard P, Malczynski J, Toft E, Andreassen S. **The automatic lung parameter estimator (ALPE) system: non-invasive estimation of pulmonary gas exchange parameters in 10-15 minutes**. Journal of Clinical Monitoring and Computing. 2002;17:43-52. doi: 10.1023/A:1015456818195

Rees SE, Kjærgaard S, Thorgaard P, Toft E, Andreassen S. **Estimating pulmonary gas exchange parameters in the clinical setting**. In Proceedings of the Meeting of the Society for Computing and Technology in Anaesthesia (SCATA), April 2001, Bournemouth, United Kingdom. 2001

Murley D, Rees SE, Rasmussen BS, Andreassen S. **A model based approach to supporting prescription of inspired oxygen fraction**. In 12th Annual Meeting of the European Society for Computing and Technology in Anaesthesia and Intensive Care, ESCTAIC, October 2001, Budapest, Hungary. 2001

Kristensen B, Larsen S, Schoenheyder HC, Leibovici L, Paul M, Frank U et al. **A decision support system (DSS) for antibiotic treatment improves empirical treatment and reduces costs**. In Abstracts of the 41st Interscience Conference on Antimicrobial Agents and Chemotherapy, September and December 2001, Chicago, Illinois, USA. Washington, DC: American Society for Microbiology. 2001. p. 476, No. L-2063

Kjærgaard S, Rees SE, Thorgaard P, Andreassen S. **Bedside estimation of pulmonary gas exchange parameters in the ICU**. In Proceedings of the 8th World Congress in Intensive Care Medicine, November 2001, Sydney, Australia. 2001. p. 134, No. P147

Rees SE, Kjærgaard S, Thorgaard P, Toft E, Andreassen S. **A physiological model based approach to medical decision support in the intensive care unit**. In Workshop during the 8th European Conference on Artificial Intelligence in Medicine (AIME): Computers in Anaesthesia and Intensive Care: Knowledge-Based Information Management, 1 July 2001, Cascais, Portugal. 2001. p. 30-32

Rees SE, Allerød C, Kjærgaard S, Toft E, Thorgaard P, Andreassen S. **Diagnosing patient state in intensive care patients using the intelligent ventilator (INVENT) system**. In Quaglini S, Barahona P, Andreassen S, editors, Proceedings of the 8th Conference on Artificial Intelligence in Medicine in Europe, AIME 2001, July 2001, Cascais, Portugal. Springer. 2001. p. 131-135. (Lecture Notes In Artificial Intelligence).

Olesen KG, Andreassen S, Suojanen M. **Modularising inference in large causal probabilistic networks**. In Rionda, A. B. : Otero, R. P., editor, CAEPIA-TTIA 2001 : Proceedings of the Ninth Conference of the Spanish Association of Artificial Intelligence. Oviedo University Press. 2001. p. 1075-1084

Andreassen S, Suojanen M, Falck B, Olesen KG. **Improving the diagnostic performance of MUNIN by remodelling of the diseases**. In Quaglini S, Barahona P, Andreassen S, editors, Artificial Intelligence in Medicine : 8th Conference on Artificial Intelligence in Medicine in Europe, AIME 2001, 1-4 July 2001, Cascais, Portugal : Proceedings: Lecture Notes in Computer Science. 2101 ed. IEEE Computer Society Press. 2001. p. 167-176

Rees SE, Kjærgaard S, Andreassen S. **Mathematical modelling of pulmonary gas exchange**. In Carson ER, Cobelli C, editors, Modelling Methodology for Physiology and Medicine. San Diego, CA: Academic Press. 2001. p. 253-278

Falborg K, Kristensen L, Andreassen S, Klitgaard J, Lindstrøm S, Nielsen AM et al. **D7 - Database structure and tables: Deliverable D7 for the project TREAT, IST-1999-11459 (Report)**. 2001. 59 p.

Andreassen S. **Medical decision support systems based on causal probabilistic networks**. 2nd ed. Aalborg: Department of Medical Informatics and Image Analysis, 2001.

Kjærgaard S, Rees SE, Nielsen JA, Grønlund J, Thorgaard P, Andreassen S. **A method for monitoring of postoperative hypoxaemia**. European Journal of Anaesthesiology. 2001;18(Suppl. 21):29. No. A-102.

Allerød C, Rees SE, Kjærgaard S, Toft E, Thorgaard P, Andreassen S. **Simultaneous estimation of metabolic pulmonary and haemodynamic parameters from routine clinical data**. Acta Anaesthesiologica Scandinavica. 2001;45(Suppl. 115):60, No. P5-4.

Suojanen M, Andreassen S, Olesen KG. **A method for diagnosing multiple diseases in MUNIN**. IEEE Transactions on Biomedical Engineering. 2001;48(5):522-532.

Kjærgaard S, Rees SE, Nielsen JA, Freundlich M, Thorgaard P, Andreassen S. **Modelling of hypoxaemia after gynaecological laparotomy**. Acta Anaesthesiologica Scandinavica. 2001;45(3):349-356.

Rees SE, Toft E, Thorgaard P, Kjærgaard SC, Andreassen S, inventors. **Automatic lung parameter estimator**. AU200022788-A ; WO200045702-A1 ; US7008380. 2000.

Rees SE, Kjærgaard S, Thorgaard P, Toft E, Andreassen S. **Non-invasive estimation of pulmonary gas exchange parameters in 10-15 minutes**. In Proceedings of the Annual Meeting of the European Society for Computing and Technology in Anaesthesia and Intensive Care, 2000. 2000. p. 65-66

Arleth T, Andreassen S, Orsini-Federici M, Timi A, Benedetti MM. **A model of glucose absorption from mixed meals**. In Carson ER, Salzsieder E, editors, Modelling and control in biomedical systems 2000 (including biological systems): a proceedings volume from the 4th IFAC Symposium, Karlsburg/Greifswald, Germany, 30 March-1 April 2000. Oxford: Pergamon Press. 2000. p. 307-312

Andreassen S. **Medical decision support systems based on causal probabilistic networks**. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis, 2000.

Orsini-Federici M, Arleth T, Andreassen S, Alessia T, Benedetti MM. **Verification of a model of carbohydrate absorption from mixed meals: medical deliverable on diet composition (DIAS-DC)**. Perugia: Department of Internal Medicine and Endocrine and Metabolic Sciences, Perugia University, 2000. 15 p.

Arleth T, Andreassen S, Orsini-Federici M, Alessia T, Benedetti MM. **A model of carbohydrate absorption from mixed meals: technical deliverable on diet composition (DIAS-DC)**. 2000. 23 p.

Andreassen S, Suojanen M, Falck B, Olesen KG. **Improving the diagnosing performance of MUNIN by remodelling of the diseases**. 2000. (Technical Report : Department of Medical Informatics, Aalborg University).

Orsini-Federici M, Andreassen S, Arleth T, Benedetti MM. **Insulin dose adjustment of type I diabetics by the DIAS decision support system**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 2000;13(4):234, No. 22.

Federici MO, Andreassen S, Arleth T, Hejlesen O, Pocciati S, Timi A et al. **The "DIAS" can improve insulin dose adjustment in type I diabetics**. Acta Diabetologica. 2000;37(3):162. doi: 10.1007/s005920070018

Arleth T, Andreassen S, Orsini-Federici M, Timi A, Benedetti MM. **Verification of a model of carbohydrate absorption from mixed meals**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 2000;13(4):237, No. 27.

Andreassen S, Arleth T. **A model of the effects of exercise on intramuscular glycogen and on blood glucose**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 2000;13(4):241, No. 36.

Carson ER, Andreassen S, Cavan DA, Gomez EJ. **Computers in diabetes: an introduction**. Computer Methods and Programs in Biomedicine. 2000;62(3):153-155. doi: 10.1016/S0169-2607(00)00063-8

Leibovici L, Fishman M, Schønheyder HC, Riekehr C, Kristensen B, Shraga I et al. **A causal probabilistic network for optimal treatment of bacterial infections**. IEEE Transactions on Knowledge and Data Engineering. 2000;12(4):517-528.

Arleth T, Andreassen S, Orsini-Federici M, Benedetti MM. **A model of endogenous glucose balance incorporating the characteristics of glucose transporters**. Computer Methods and Programs in Biomedicine. 2000;62:219-234.

Malczynski J, Korup EM, Rees SE, Andreassen S, Thorgaard P, Toft E. **The lung alveolar - lung capillary oxygen pressure drop as a new measure of lung problems in left sided heart failure: a new approach to estimate cardiac decompensation**. In Proceedings of the XVIIth Nordic Congress in Cardiology, 9-11 June 1999, Reykjavik, Iceland. 1999

Kjærgaard S, Grønlund JS, Rees SE, Nielsen EM, Jensen PL, Thorgaard P et al. **Timecourse of hypoxaemia following coronary artery bypass surgery described by shunt and resistance to oxygen diffusion**. In Proceedings of the 48th Annual Meeting of the Scandinavian Association for Thoracic Surgery (SATS), 26-28 August 1999, Aalborg, Denmark. 1999. p. 86

Kjærgaard S, Rees SE, Grønlund JS, Nielsen JA, Freundlich M, Toft E et al. **Using a mathematical model of oxygen transport to monitor pulmonary function following surgery**. In Computers in Anaesthesia and Intensive Care : Knowledge-Based Information Management, 20 June 1999, Aalborg, Denmark: Workshop during the Joint European Conference on Artificial Intelligence in Medicine and Medical Decision Making (AIMDM'99). European Society for Medical Decision Making. 1999. p. 92-93

Turner BC, Jenkins E, Hejlesen OK, Andreassen S, Hovorka R, Kerr D et al. **Low insulin effectiveness in poorly controlled type 1 diabetes: an overlooked therapeutic target?** In Proceedings of 35th Annual Meeting of the EASD, 28 September-2 October 1999, Brussels, Belgium. 1999

Rees SE, Andreassen S, Freundlich M, Morgan CJ, Carson ER, Thorgaard P. **Selecting ventilator settings using INVENT: a system including physiological models and penalty functions**. In Computers in Anaesthesia and Intensive Care : Knowledge-Based Information Management, 20 June 1999, Aalborg, Denmark: Workshop during the Joint European Conference on Artificial Intelligence in Medicine and Dedical Decision Making (AIMDM'99). European Society for Medical Decision Making. 1999. p. 76-85

Andreassen S, Leibovici L, Schønheyder HC, Kristensen B, Riekehr C, Kjær AG et al. **A decision theoretic approach to empirical treatment of bacteraemia originating from the urinary tract**. In Horn W, Shahar Y, Lindberg G, Andreassen S, Wyatt J, editors, Proceedings of Joint European Conference on Artificial Intelligence in Medicine and Medical Decision Making, AIMDM 99, 20-24 June 1999, Aalborg, Denmark. Springer. 1999. p. 197-206. (Lecture Notes in Artificial Intelligence , subseries of Lecture Notes in Computer Science; No. 1620). doi: 10.1007/3-540-48720-4_21

Horn W, (ed.), Shahar Y, (ed.), Lindberg G, (ed.), Andreassen S, (ed.), Wyatt J, (ed.). **Artificial Intelligence in Medicine, Joint European Conference on Artificial Intelligence in Medicine and Medical Decision Making, AIMDM '99 Aalborg, Denmark, June 20-24, 1999 : Proceedings**. Berlin: Springer, 1999. (Lecture Notes in Artificial Intelligence , subseries of Lecture Notes in Computer Science; No. 1620). doi: 10.1007/3-540-48720-4

Turner BC, Jenkins E, Hejlesen OK, Andreassen S, Hovorka R, Kerr D et al. **The DIAS computer model uncovers frequent insulin "failure" in poorly controlled Type 1 diabetes**. Diabetologia. 1999;42(Suppl. 1):A251.

Suojanen M, Andreassen S, Olesen KG. **The EMG diagnosis: an interpretation based on partial information**. Medical Engineering & Physics. 1999;21(6-7):517-523.

Leibovici L, Shraga I, Andreassen S. **How do you choose antibiotic treatment?** B M J. 1999;318(7198):1614-1616. doi: 10.1136/bmj.318.7198.1614

Kristensen B, Andreassen S, Leibovici L, Riekehr C, Kjær AG, Schønheyder HC. **Empirical treatment of bacteraemic urinary tract infection: evaluation of a decision support system**. Danish Medical Bulletin. 1999;46(4):349-353.

Hovorka R, Tudor RS, Southerden D, Meeking DR, Andreassen S, Hejlesen OK et al. **Dynamic updating in DIAS-NIDDM and DIAS causal probabilistic networks**. IEEE Transactions on Biomedical Engineering. 1999;46(2):158-168. doi: 10.1109/10.740878

Andreassen S, Rees SE, Kjærgaard S, Thorgaard P, Winter SM, Morgan CJ et al. **Hypoxemia after coronary bypass surgery modeled by resistance to oxygen diffusion**. Critical Care Medicine. 1999;27(11):2445-2453.

Andreassen S, Riekehr C, Kristensen B, Schønheyder HC, Leibovici L. **Using probabilistic and decision-theoretic methods in treatment and prognosis modeling**. Artificial Intelligence in Medicine. 1999;15(2):121-134.

Suojanen M, Andreassen S, Olesen KG. **Is the prior probability of carpal tunnel syndrome 25%?** In Proceedings from the 6th International Conference on Computerized Quantitative EMG, 1998, Vigo, Spain. 1998. p. No. BS4

Kjærgaard S, Andreassen S, Rees SE, Winter SM, Morgan CJ, Alstrup P et al. **Describing pulmonary dysfunction following surgery: a simple method**. In Proceedings of the 2nd Symposium and Scientific Meeting of the Nordic Working Group in Intensive Care Medicine, 1998. 1998

Kjærgaard S, Andreassen S, Rees SE, Winter SM, Morgan CJ, Alstrup P et al. **Hypoxemia after coronary artery bypass surgery modelled by resistance to oxygen diffusion**. In PGA'52 : 52nd Postgraduate Assembly in Anaesthesiology, 1998, New York, NY, USA. 1998

Andreassen S, Leibovici L, Schønheyder HC, Kristensen B, Riekehr C, Kjær AG et al. **A decision theoretic approach to empirical treatment of bacteraemia originating from the urinary tract**. In Proceedings of Workshop on Intelligent Data Analysis in Medicine and Pharmacology, IDAMAP-98: a Workshop at ECAI-98, Brighton, UK. 1998. p. 48-53

Arleth T, Andreassen S. **DiabStyle: Diabetes insulin advisory system that models diabetic-specific physiology and lifestyle. Software and documentation for DIAS-EA**. 1998. 51 p.

Turner B, Jenkins E, Hejlesen OK, Andreassen S, Hovorka R, Kerr D et al. **"Insulin effectiveness" determined by the DIAS model is related to dietary composition and glycaemic control**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 1998;11(1):79.

Rees SE, Rutledge GW, Andersen PT, Andreassen S. **Are alveolar block and ventilation-perfusion mismatch distinguishable in routine clinical data?** Journal of Clinical Monitoring and Computing. 1998;14(7-8):546-547.

Jensen KD, Hejlesen OK, Lervang HH, Andreassen S, Hovorka R, Cavan DA. **A model-based approach to the Somogyi phenomenon: a study of the 32 hour hormonal response to spontaneous nocturnal hypoglycaemia**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 1998;11(1):81.

Jensen KD, Hejlesen OK, Lervang HH, Andreassen S, Jacobsen PE, Hovorka R et al. **A pilot study of the 32 hour hormonal response to spontaneous nocturnal hypoglycaemia in Type 1 diabetic patients**. Diabetic Medicine. 1998;15(Suppl. 1):S36, No. P69.

Hejlesen OK, Andreassen S, Hovorka R, Cavan DA. **Implementation of interpatient variability and of dose size dependency of the absorption speed of NPH insulin in the Diabetes Advisory System (DIAS)**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 1998;11(1):80.

Benedetti MM, Andreassen S, Pocciati S, Hejlesen OK, Federici MO, Arleth T. **Evaluation of a decision support system for the adjustment of the insulin dose in Type I diabetic patients: methodological aspects**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 1998;11(1):76.

Arleth T, Andreassen S, Hejlesen OK, Cavan D, Hovorka R. **A model of endogenous glucose balance incorporating the known characteristics of glucose transporters**. Diabetes, Nutrition and Metabolism. Clinical and Experimental. 1998;11(1):83.

Tudor RS, Hovorka R, Cavan DA, Meeking D, Hejlesen OK, Andreassen S. **DIAS-NIDDM: a model-based decision support system for insulin dose adjustment in insulin-treated subjects with NIDDM**. Computer Methods and Programs in Biomedicine. 1998;56(2):175-191. doi: 10.1016/S0169-2607(98)00024-8

Hejlesen OK, Andreassen S, Frandsen NE, Petersen T, Sandø SH, Cavan DA et al. **Using a double blind controlled clinical trial to evaluate the function of a Diabetes Advisory System: a feasible approach?** Computer Methods and Programs in Biomedicine. 1998;56:165-173.

Cavan DA, Hejlesen OK, Hovorka R, Evans JA, Metcalfe JA, Cavan ML et al. **Preliminary experience of the DIAS computer model in providing insulin dose advice to patients with insulin dependent diabetes**. Computer Methods and Programs in Biomedicine. 1998;56(2):157-164. doi: 10.1016/S0169-2607(98)00022-4

Suojanen M, Olesen KG, Andreassen S. **A method for diagnosing in large medical expert systems based on causal probabilistic networks**. In Keravnou E, Garbay C, Baud R, Wyatt J, editors, Artificial Intelligence in Medicine: 6th Conference on Artificial Intelligence in Medicine Europe, AIME '97, 23-26 March 1997, Grenoble, France. Proceedings. Berlin: Springer. 1997. p. 285-295. (Lecture Notes in Artificial Intelligence : Subseries of Lecture Notes in Computer Science; No. 1211).

Rees SE, Andreassen S, Hovorka R, Carson ER. **A dynamic model of carbon dioxide transport in the blood**. In Proceedings of the 3rd International Federation of Automatic Control (IFAC) Symposium on Modelling and Control in Biomedical Systems, 1997. 1997. p. 63-68

Rees SE, Andreassen S, Morgan CJ, Freundlich M, Carson E. **Balancing oxygenation, acid/base status and lung damage in the ventilated patient: a decision theoretical approach**. In Proceedings of the Mathematical Modelling in Medicine Conference, 25-26 September 1997, Roskilde, Denmark. 1997. p. 7-8

Andreassen S, Kristensen B, Schønheyder HC, Kjær AG, Olesen KG, Leibovici L. **Beslutningsstøttesystem til styring af antibiotikabehandling: et passende emne for MTV?** In Sundhedsstyrelsens Årsmøde 1997 om Kvalitetsudvikling og Medicinsk Teknologivurdering (MTV), April 1997, København, Danmark. 1997. p. 41

Andreassen S, Rees SE, Kjærgaard S, Winter SM, Morgan CJ, Andersen P. **Patient specific modelling of hypoxaemia**. In Proceedings of the Mathematical Modelling in Medicine Conference, 25-26 September 1997, Roskilde, Denmark. 1997. p. 6-7

Hejlesen OK, Andreassen S, Hovorka R, Meeking D, Cavan DA. **A positive correlation between the magnitude of the Somogyi effect and the dosage of intermediate acting insulin**. Diabetologia. 1997;40(Suppl. 1):A237, No. 932.

Hejlesen OK, Rix M, Andreassen S, Lange A, Schaarup J, Østergaard E et al. **Evaluation of a diabetes advisory system in adolescents**. Diabetologia. 1997;40(Suppl. 1):A644, No. 2533.

Andreassen S, Hejlesen OK, Frandsen NE, Petersen T, Sandø SH, Cavan DA et al. **Evaluation of a diabetes advisory system**. Diabetologia. 1997;40(Suppl. 1):A645, No. 2536.

Nielsen KD, Kjær A, Jensen W, Dyrby T, Andreasen LNS, Andersen J et al. **Causal probabilistic network and power spectral estimation used in sleep stage classification**. Methods of Information in Medicine. 1997;36:345-348.

Hejlesen OK, Andreassen S, Hovorka R, Cavan DA. **DIAS - the Diabetes Advisory System: an outline of the system and the evaluation results obtained so far**. Computer Methods and Programs in Biomedicine. 1997;54(1-2):49-58. doi: 10.1016/S0169-2607(97)00033-3

Andreassen S, Carson ER, Cashman SJ, Engelbrecht R, Fletcher LR, Harvey M et al. **A methodology for assessing and evaluating information technology systems in diabetes care**. Diabetes, Nutrition and Metabolism. Clinical and Experimental . 1997;10:256-264.

Rix M, Hejlesen OK, Andreassen S, Lange A, Schaarup J, Østergaard E et al. **Insulin dose adjustment in adolescents by DIAS**. In Andreassen S, Cavan DA, Trajanoski Z, editors, Proceedings, Symposium on Computers in Diabetes , 31 August-1 September 1996, Graz, Austria. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis. 1996. p. 51. (Symposium on Computers in Diabetes : Proceedings).

Jensen KD, Jensen BP, Lervang HH, Andreassen S, Hejlesen OK. **Can selected Danish diabetic patients learn to estimate the dietary carbohydrate content and can they be taught to use Acutrend DM Blood Glucose Meter?** In Andreassen S, Cavan DA, Trajanoski Z, editors, Proceedings, Symposium on Computers in Diabetes , 31 August-1 September 1996, Graz, Austria. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis. 1996. p. 41. (Symposium on Computers in Diabetes : Proceedings).

Hejlesen OK, Andreassen S, Hovorka R, Cavan DA. **A positive correlation between the total daily dosage of intermediate acting insulin and the magnitude of hypoglycaemic counter-regulations in insulin dependent diabetes indicated by a model based statistical analysis**. In Andreassen S, Cavan DA, Trajanoski Z, editors, Proceedings, Symposium on Computers in Diabetes , 31 August-1 September 1996, Graz, Austria. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis. 1996. p. 36. (Symposium on Computers in Diabetes : Proceedings).

Cavan DA, Hejlesen OK, Hovorka R, Meeking DR, Andreassen S, Sönksen PH. **Using the Diabetes Advisory System (DIAS) to provide patient specific advice on insulin dose to prevent hypoglycaemia**. In Andreassen S, Cavan DA, Trajanoski Z, editors, Proceedings, Symposium on Computers in Diabetes , 31 August-1 September 1996, Graz, Austria. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis. 1996. p. 38. (Symposium on Computers in Diabetes : Proceedings).

Arleth T, Andreassen S, Kjær AG, Hejlesen OK, Meeking DR, Cavan DA et al. **Insulin doses and carbohydrate intake in IDDM patients performing exercise**. In Andreassen S, Cavan DA, Trajanoski Z, editors, Proceedings, Symposium on Computers in Diabetes , 31 August-1 September 1996, Graz, Austria. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis. 1996. p. 30. (Symposium on Computers in Diabetes : Proceedings).

Andreassen S, Leibovici L, Schønheyder HC, Olesen KG, Kristensen B. **Decision support systems in bacteraemia: evaluation of a prototype for empirical treatment of Danish patients with urosepsis**. In Proceedings, Bi-National Israel-Denmark Symposium on Optimal Antibiotic Treatment of Severe Bacterial Infections, November 11-12 1996, Herzlia,

Israel. 1996

Andreassen S, Hejlesen OK, Frandsen NE, Petersen T, Sandø SH, Cavan DA et al. **Evaluation of Diabetes Advisory System (DIAS) by a double blind controlled clinical trial: a necessary step?** In Andreassen S, Cavan DA, Trajanoski Z, editors, Proceedings, Symposium on Computers in Diabetes , 31 August-1 September 1996, Graz, Austria. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis. 1996. p. 39. (Symposium on Computers in Diabetes : Proceedings).

Andreassen S. **Tre år med kvalitetsregnskaber i Nordjyllands Amt**. In Sundhedsstyrelsens Årsmøde 1996 om Kvalitetsudvikling og Medicinsk Teknologivurdering (MTV), 1996. Sundhedsstyrelsen. 1996. p. 7

Olesen KG, Andreassen S. **A Heuristic Method for Diagnosing Multiple Diseases in Complex Medical Domains Modelled by Causal Probabilistic Networks**. In Brender J, Christensen JP, Scherrer JR, McNair P, editors, Medical Informatics Europe'96. IOS Press. 1996. p. 614-618. (Studies in Health Technology and Informatics, Vol. 34).

Nielsen KD, Andersen JM, Andreasen LNS, Dyrby T, Jensen W, Kjær AG et al. **Causal probabilistic network and power spectral estimation used for sleep classification**. In Proceedings of the 2nd IFMBE-IMIA International Workshop on Biosignal Interpretation, International Federation for Medical and Biomedical Engineering (IFMBE), 1996. 1996. p. 211-214

Meeking DR, Hejlesen OK, Metcalfe J, Andreassen S, Hovorka R, Cavan DA. **Using the Diabetes Advisory System to evaluate a patient-led system of semi-quantitative dietary assessment**. In Brender, J. : Christensen, J. P. : Scherrer, J.-R. : McNair, P. (eds.), editor, Medical Informatics Europe '96. Amsterdam: IOS Press. 1996. p. 521-527. (Studies in Health Technology and Informatics; No. 34).

Andreassen S, Hejlesen OK, Hovorka R, Cavan DA. **The Diabetes Advisory System: an IT approach to the management of insulin dependent diabetes**. In Brender, J. : Christensen, J. P. : Scherrer, J.-R. : McNair, P. (eds.), editor, Medical Informatics Europe '96. Amsterdam: IOS Press. 1996. p. 1079-1083. (Studies in Health Technology and Informatics; No. 34).

Andersen SK, Andreassen S, Bygholm A, Hejlesen OK, Nøhr C. **The education in medical informatics at Aalborg University**. In van Bemmel JH, McCray AT, editors, IMIA Yearbook of Medical Informatics 1996: Integration of Information for Patient Care. Stuttgart: Schattauer. 1996. p. 111-115. (IMIA Yearbook of Medical Informatics).

Andreassen S, (ed.), Cavan DA, (ed.), Trajanoski Z, (ed.). **Proceedings from the Symposium on Computers in Diabetes on the Occasion of EASD 96**. Aalborg: Aalborg University. Department of Medical Informatics and Image Analysis, 1996. (Symposium on Computers in Diabetes : Proceedings).

Hejlesen OK, Andreassen S, Hovorka R, Meeking DR, Cavan DA. **Is the Somogyi effect due to reduced absorption of intermediate acting insulin following hypoglycaemia?** Diabetic Medicine. 1996;13(Suppl. 2):S37.

Rees SE, Andreassen S, Hovorka R, Summers R, Carson ER. **Acid-based chemistry of the blood: A general model**. Computer Methods and Programs in Biomedicine. 1996;51(1):107-119. doi: 10.1016/0169-2607(96)01766-X

Hejlesen OK, Andreassen S, Cavan DA, Hovorka R. **Analysing the hypoglycaemic counter-regulation: a clinically relevant phenomenon?** Computer Methods and Programs in Biomedicine. 1996;50(3):231-240. doi: 10.1016/0169-2607(96)01752-X

Cavan DA, Hovorka R, Hejlesen OK, Andreassen S, Sönksen PH. **Use of the DIAS model to predict unrecognised hypoglycaemia in patients with insulin-dependent diabetes**. Computer Methods and Programs in Biomedicine. 1996;50(3):241-246. doi: 10.1016/0169-2607(96)01753-1

Andreassen S, Egeberg J, Schröter MP, Andersen PT. **Estimation of pulmonary diffusion resistance and shunt in an oxygen status model**. Computer Methods and Programs in Biomedicine. 1996;51(1-2):95-105. doi: 10.1016/0169-2607(96)01765-8

Andreassen S, Rosenfalck A, Falck B, Olesen KG, Andersen SK. **Evaluation of the diagnostic performance of the expert EMG assistant MUNIN**. Electroencephalography and Clinical Neurophysiology. 1996;101:129-144.

Hejlesen OK, Andreassen S, Andersen SK. **Dynamic propagation in causal probabilistic networks with instantiated variables**. In Barahona P, Stefanelli M, Wyatt J, editors, Artificial Intelligence in Medicine: 5th Conference on Artificial Intelligence in Medicine Europe, AIME '95, 25-28 June 1995, Pavia, Italy. Proceedings. Berlin: Springer. 1995. p. 151-162. (Lecture Notes in Artificial Intelligence : Subseries of Lecture Notes in Computer Science; No. 934). doi: 10.1007/3-540-60025-6

Andreassen S. **Hvad er kvalitetskontrol og hvordan man opnår det**. In Nordisk Møde for Kliniske Neurofysiologer, 1995. Dansk Selskab for Klinisk Neurofysiologi. 1995

Cavan DA, Hejlesen OK, Hovorka R, Andreassen S, Carson ER, Sönksen PH. **Are insulin-dependent diabetic patients receiving too much insulin?** Diabetic Medicine. 1995;12(Suppl. 1):S29. doi: 10.1111/j.1464-5491.1995.tb00582.x

Cavan DA, Hejlesen OK, Hovorka R, Metcalf JA, Cavan MR, Andreassen S et al. **The Diabetes Advisory System: a new tool for management of patients with hypoglycaemia?** Diabetic Medicine. 1995;12(Suppl. 2):S35.

Nøhr C, Andreassen S. **Theory and Practice of Medical Informatics Professionally balanced in Problems and Projects**. Methods of Information in Medicine. 1995;34(5):446-449.

Hejlesen OK, Andreassen S, Sandø SH. **Optimization and evaluation of a probabilistic computer model of the glucose metabolism**. AMI : Applied Medical Informatics. 1995;1(1):11-24.

Rix M, Andreassen S, Hejlesen OK. **The dawn phenomenon in children with IDDM: confirmed by modelling of glucose metabolism**. In Symposium on Computers in Diabetes on the occasion of EASD 94: Proceedings. 1994. p. 37

Hejlesen OK, Andreassen S. **The hypoglycaemic counter-regulation: a clinically relevant phenomenon?** In Symposium on Computers in Diabetes on the occasion of EASD 94: Proceedings. 1994. p. 36

Cavan DA, Hovorka R, Andreassen S, Carson ER, Sönksen PH. **The DIAS computer model accurately predicts unrecognised hypoglycaemia in patients with insulin-dependent diabetes**. In Symposium on Computers in Diabetes on the occasion of EASD 94: Proceedings. 1994. p. 38

Andreassen S, Hejlesen OK, Sandø SH. **Evaluation of the DIAS model of glucose metabolism**. In Symposium on Computers in Diabetes on the occasion of EASD 94: Proceedings. 1994. p. 28

Andreassen S, Hejlesen OK. **The role of model-based systems in medical decision support**. In Ifeachor EC, Rosen KG, editors, Proceedings of the International Conference on Neural Networks and Expert Systems in Medicine and Healthcare: NNESMED 94. Plymouth: University of Plymouth Press. 1994. p. 310-318

Andreassen S. **From prototype to product: conditions for a successful transition**. In Barahona P, Christensen JP, editors, Knowledge and Decisions in Health Telematics. Amsterdam: IOS Press. 1994. p. 163-167. (Studies in Health Technology and Informatics; No. 12).

Andreassen S, Christensen HI. **Image and signal processing: synopsis**. In van Bemmel JH, McCray AT, editors, IMIA Yearbook of Medical Informatics 1994: Advanced Communications in Health Care. Stuttgart: Schattauer. 1994. p. 263-265. (IMIA Yearbook of Medical Informatics).

Cavan DA, Halim M, Hejlesen OK, Hovorka R, Andreassen S, Carson ER et al. **The DIAS computer model accurately predicts unrecognised hypoglycaemia in patients with insulin-dependent diabetes**. Diabetic Medicine. 1994;11(Suppl. 2):S25. doi: 10.1111/j.1464-5491.1994.tb00381.x

Andreassen S, Benn JJ, Hovorka R, Olesen KG, Carson ER. **A probabilistic approach to glucose prediction and insulin dose adjustment: description of a metabolic model and pilot evaluation study**. Computer Methods and Programs in Biomedicine. 1994;41(3-4):153-165.

Andreassen S. **Model-based biosignal interpretation**. Methods of Information in Medicine. 1994;33(1):103-110.

Olesen KG, Andreassen S. **Representation of anatomy and pathophysiology in the EMG expert system MUNIN**. In Proceedings of the Annual Meeting of the Danish Society for Clinical Neurophysiology, 1993, Kolding, Denmark. 1993

Halim M, Carson ER, Andreassen S, Hejlesen OK. **The role of a diabetic advisory system (DIAS) in the management of insulin-dependent diabetes mellitus**. In Engineering Solutions to Current Health Care Problems : Proceedings of the 15th Annual International Conference Engineering in Medicine and Biology Society, IEEE/EMBS, 1993, San Diego, CA, USA. 1993. p. 612-613

Summers R, Andreassen S, Carson ER, Egebjerg J, Schröter MP. **A causal probabilistic model of the respiratory system**. In Engineering Solutions to Current Health Care Problems : Proceedings of the 15th Annual International Conference Engineering in Medicine and Biology Society, IEEE/EMBS, 1993, San Diego, CA, USA. 1993

Summers R, Andreassen S, Carson ER, Egebjerg J, Morgan C, Schröter MP. **Respiratory modelling: a causal probabilistic modelling representation**. In Fourth Annual Meeting of ESCTAIC, 1993, Salzburg, Austria. 1993

Andreassen S, Olesen KG. **Diagnosis of neuromuscular diseases by the EMG expert system MUNIN**. In Proceedings of the Annual Meeting of the Danish Society for Clinical Neurophysiology, Kolding, Denmark. 1993

Lipsanen M, Andreassen S, Falck B, Halonen P. **A prototype decision support system for diagnosing polyneuropathies**. In Andreassen S, Engelbrecht R, Wyatt J, editors, Artificial Intelligence in Medicine : Proceedings of the 4th Conference on Artificial Intelligence in Medicine Europe, 3-6 October 1993, Munich, Germany. Amsterdam: IOS Press. 1993. p. 99-109. (Studies in Health Technology and Informatics; No. 10).

Hovorka R, Andreassen S, Benn JJ, Olesen KG, Carson ER. **Causal probabilistic network modeling: an illustration of its role in the management of chronic diseases**. In van Bemmel JH, McCray AT, editors, IMIA Yearbook of Medical Informatics 1993: Sharing Knowledge and Information. Stuttgart: Schattauer. 1993. p. 328-340. (IMIA Yearbook of Medical Informatics).

Hejlesen OK, Andreassen S, Andersen SK. **Implementation of a learning procedure for multiple observations in a diabetes advisory system based on causal probabilistic networks**. In Andreassen S, Engelbrecht R, Wyatt J, editors, Artificial Intelligence in Medicine : Proceedings of the 4th Conference on Artificial Intelligence in Medicine Europe, 3-6 October 1993, Munich, Germany. Amsterdam: IOS Press. 1993. p. 63-74. (Studies in Health Technology and Informatics; No. 10).

Andreassen S, Egebjerg J, Schröter M, Andersen PT. **Oxygen status model for the ventilatory and circulatory contribution to tissue oxygenation**. In Andreassen S, Engelbrecht R, Wyatt J, editors, Artificial Intelligence in Medicine : Proceedings of the 4th Conference on Artificial Intelligence in Medicine Europe, 3-6 October 1993, Munich, Germany. Amsterdam: IOS Press. 1993. p. 208-217. (Studies in Health Technology and Informatics; No. 10).

Andreassen S, (ed.), Engelbrecht R, (ed.), Wyatt J, (ed.). **Artificial Intelligence in Medicine: Proceedings of the 4th Conference on Artificial Intelligence in Medicine Europe, 3-6 October 1993, Munich, Germany**. Amsterdam: IOS Press, 1993. (Studies in Health Technology and Informatics; No. 10).

Andreassen S, Falck B, Olesen KG. **EMG cases as seen by the expert system MUNIN, by EMG experts and by the audience**. Canadian Journal of Neurological Sciences. 1993;20:344.

Toft E, Sinkjær T, Andreassen S, Hansen HJ. **Stretch responses to ankle rotation in multiple sclerosis patients with spasticity**. Electroencephalography and Clinical Neurophysiology. 1993;89(5):311-318. doi: 10.1016/0168-5597(93)90070-6

Sinkjær T, Toft E, Larsen K, Andreassen S. **EMG-torque dynamics at different contraction levels in human ankle muscles**. Journal of Electromyography & Kinesiology. 1993;3(2):67-77. doi: 10.1016/1050-6411(93)90001-D

Sinkjær T, Toft E, Larsen K, Andreassen S, Hansen HJ. **Non-reflex and reflex mediated ankle joint stiffness in multiple sclerosis patients with spasticity**. Muscle & Nerve. 1993;16(1):69-76. doi: 10.1002/mus.880160112

Olesen KG, Andreassen S. **Specification of models in large expert systems based on causal probabilistic networks**. Artificial Intelligence in Medicine. 1993;5(3):269-281. doi: 10.1016/0933-3657(93)90029-3

Andreassen S. **Diagnosis of neuromuscular disorders based on anatomy and physiology**. In IEE colloquium on "Neurological Signal Processing", 26 March 1992, London, United Kingdom. 1992. p. Digest No. 1992/069

Andreassen S. **Prediction of blood glucose and adjustment of insulin doses by a metabolic model - SWAN**. In Computers in Diabetes : Proceedings of the International Symposium held on the Occasion of the European Associoation for the Study of Diabetes, EASD '92, 14-15 September 1992, Karlovy Vary, Czechoslovakia. 1992. p. 4

Andreassen S. **The diagnostic performance of the EMG expert system "MUNIN"**. In Proceedings IXth International Congress of Electromyography and Clinical Neurophysiology, 8-12 June 1992, Jerusalem, Israel. 1992. p. 10

Andreassen S. **Knowledge representation by extended linear models**. In Keravnou E, editor, Deep Models for Medical Knowledge Engineering. Pergamon Press. 1992. p. 129-145

Hovorka R, Andreassen S, Benn JJ, Olesen KG, Carson ER. **Causal probabilistic network modelling: an illustration of its role in the management of chronic diseases**. IBM Systems Journal. 1992;31(4):635-648.

Andreassen S, Falck B, Olesen KG. **Diagnostic function of the microhuman prototype of the expert system: MUNIN**. Electroencephalography and Clinical Neurophysiology. 1992;85:143-157.

Andreassen S. **Planning of therapy and tests in causal probabilistic networks**. Artificial Intelligence in Medicine. 1992;4(3):227-241. doi: 10.1016/0933-3657(92)90029-O

Toft E, Sinkjær T, Andreassen S, Larsen K, Hansen HJ. **Muscle stretch responses during voluntary and electrically elicited muscle contraction**. In Abstract Book of the COMAC-BME Topical Workshop "New Theoretical and Applied Approaches in the Restoration of Impaired Motor Control", 7-8 June 1991, Aalborg, Denmark. Pro Juventute. 1991. p. 39

Sinkjær T, Toft E, Larsen K, Andreassen S. **EMG-torque dynamics at different contraction levels in human ankle flexors and extensors**. In Proceedings of the COMAC-BME Topical Workshop "New Theoretical and Applied Approaches in the Restoration of Impaired Motor Control", 7-8 June 1991, Aalborg, Denmark. Pro Juventute. 1991. p. 41-57

Roudsari AV, Leicester HJ, Lehmann ED, Hovorka R, Andreassen S, Deutsch T et al. **A validation methodology for testing decision-support systems for insulin dosage adjustment**. In The 10th International Congress, MIE '91, European Federation for Medical Informatics, 1991, Vienna, Austria. 1991

Benn JJ, Hovorka R, Rasmussen O, Olesen KG, Carson ER, Andreassen S. **A probabilistic model for prediction of blood glucose and advice on insulin dose**. In Proceedings of the International Symposium held on the Occasion of the European Association for the Study of Diabetes, EASD '91, September, Dublin, Ireland. 1991

Andreassen S, Hovorka R, Benn J, Olesen KG, Carson ER. **A model-based approach to insulin adjustment**. In Stefanelli M, Hasman A, Fieschi M, Talmon J, editors, Lecture Notes in Medical Informatics: Proceedings of the Third Conference on Artificial Intelligence in Medicine, AIME '91, Maastricht, the Netherlands. Vol. 44. Springer. 1991. p. 239-249. (Lecture Notes in Medical Informatics; No. 44).

Andreassen S. **Decisions based on qualitative and quantitative reasoning**. In Talmon JL, Fox J, editors, Knowledge Based Systems in Medicine : Methods, Applications, and Evaluation: Proceedings of the Workshop "System Engineering in Medicine", 16-18 March 1989, Maastricht, the Netherlands. Berlin: Springer. 1991. p. 68-79. (Lecture Notes in Medical Informatics; No. 47).

Andreassen S, Hovorka R, Benn JJ, Olesen KG, Carson E. **A model-based approach to insulin adjustment**. Aalborg: Institute of Electronic Systems, Aalborg University, 1991. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 91-12).

Andreassen S, Benn JJ, Hovorka R, Olesen KG, Carson ER. **A probabilistic approach to glucose prediction and insulin dose adjustment: description of a metabolic model and pilot evaluation study.** Aalborg: Institute of Electronic Systems, Aalborg University, 1991. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 91-23).

Andreassen S, Falck B, Olesen KG. **Diagnostic function of the expert EMG assistant MUNIN**. Aalborg: Institute of Electronic Systems, Aalborg University, 1991. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 91-15).

Andreassen S. **Knowledge representation by extended linear models**. Aalborg: Institute of Electronic Systems, Aalborg University, 1991. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 91-30).

Andreassen S, Jensen FV, Olesen KG. **Medical expert systems based on causal probabilistic networks**. Aalborg: Institute of Electronic Systems, Aalborg University, 1991. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 91-6).

Andreassen S. **Different types of decision support systems: the clinical perspective**. Scandinavian Journal of Gastroenterology. 1991;26(s183):32, No. I23.

Toft E, Sinkjær T, Andreassen S, Larsen K. **Mechanical and electromyographic responses to stretch of the human ankle extensors**. Journal of Neurophysiology. 1991;65(6):1402-1410.

Falck B, Andreassen S, Groth T, Lang H, Melander M, Nurmi A et al. **The development of a multicenter database for reference values in clinical neurophysiology: principles and examples**. Computer Methods and Programs in Biomedicine. 1991;34:145-162.

Andreassen S, Jensen FV, Olesen KG. **Medical expert systems based on causal probabilistic networks**. International Journal of Biomedical Computing. 1991;28(1-2):1-30.

Toft E, Sinkjær T, Larsen K, Andreassen S, Hansen HJ. **Mechanical and electromyographic responses to stretch of lower leg muscles in spastic patients with multiple sclerosis**. In Proceedings of the 8th Nordic Meeting on Medical and Biological Engineering, June 1990, Aalborg, Denmark. 1990. p. A31

Rosenfalck A, Andreassen S, Falck B. **Knowledge-based systems in clinical neurophysiology**. In Proceedings of Medical Audit in Clinical Neurophysiology, 1990, London, United Kingdom. 1990

Andreassen S, Benn JJ, Carson E, Hovorka R, Kjærulff UB, Olesen KG. **A causal probabilistic network model of carbohydrate metabolism for insulin adjustment**. In Pedersen PC, Onoral B, editors, Biomedical Engineering Perspectives : Health Care Technologies for the 1990'es and Beyond. Proceedings of the 12th Annual International Conference Engineering in Medicine and Biology Society, IEEE/EMBS, 1990, New York, NY, USA. 1990. p. 1011

Andreassen S, Benn J, Carson E, Kristensen LD, Hovorka R, Kjærulff UB et al. **A causal probabilistic network model of carbohydrate metabolism in diabetes**. In Proceedings of the 8th Nordic Meeting on Medical and Biological Engineering, June 1990, Aalborg, Denmark. 1990. p. A78

Andreassen S, Falck B, Olesen KG, Rosenfalck A. **The MUNIN microhuman: a prototype of an expert system for diagnosis of neuromuscular disorders**. In Proceedings of the 8th Nordic Meeting on Medical and Biological Engineering, June 1990, Aalborg, Denmark. 1990. p. A89

Hovorka R, Andreassen S, Benn JJ, Carson ER, Kjærulff UB, Kristensen LD et al. **A causal probabilistic network model to assist in insulin therapy adjustment**. In Proceedings of the 6th Annual Meeting on Expert Systems in Medicine, 1990, London, United Kingdom. 1990

Benn J, Andreassen S, Carson ER, Kristensen LD, Hovorka R, Kjærulff UB et al. **Use of a causal probabilistic network for insulin dose adjustment in diabetes**. In Proceedings of the International Symposium held on the Occasion of the European Association for the Study of Diabetes, EASD '90, 7-8 September 1990, Køge, Denmark. 1990

Olesen KG, Kjærulff UB, Jensen F, Jensen FV, Falck B, Andreassen S et al. **A MUNIN Network for the Median Nerve - A Case Study on Loops**. In Horn W, editor, Causal AI Models - Steps Toward Applications. Hemisphere Publishing Corporation. 1990. p. 301-320

Andreassen S. **Expert systems in EMG**. Electroencephalography and Clinical Neurophysiology. 1990;75(Suppl.):S4. doi: 10.1016/0013-4694(90)91730-D

Toft E, Sinkjær T, Andreassen S. **Maximal force of the soleus and gastrocnemius muscles in humans**. In Proceedings of the XXXIst International Congress of Physiological Sciences, 1989, Helsinki, Finland. 1989. p. P1476

Sinkjær T, Toft E, Andreassen S, Larsen K. **EMG-torque model to predict reflex mediated torque**. In Proceedings of the 11th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 9-12 November 1989, Seattle, WA, USA: Images of the Twenty-First Century. 1989. p. 1043-1044 doi: 10.1109/IEMBS.1989.96077

Sinkjær T, Toft E, Andreassen S. **Reflex contributions to the stiffness of voluntarily contracted ankle plantar flexors in humans**. In Proceedings of the XXXIst International Congress of Physiological Sciences, 1989, Helsinki, Finland. 1989. p. P4473

Sinkjær T, Toft E, Andreassen S. **Twitchlike EMG-torque model in human ankle flexors**. In Society for Neuroscience 19th Annual Meeting, 29 October-3 November 1989, Phoenix, AZ, USA: Abstract Book, Vol. 15. 1989. p. 524

Rosenfalck A, Andreassen S, Thomsen CE, Kirkegaard C. **Videnbaseret system til patientovervågning under anæstesi**. In FTU seminar, 1989. 1989. p. 124

Woldbye M, Sørensen AR, Rosenfalck A, Jensen FV, Falck B, Andreassen S. **An interactive neuroanatomy knowledge base for EMG**. In Desmedt JE, editor, Computer-Aided Electromyography and Expert Systems. Pergamon Press. 1989. p. 279-288

Andreassen S, Stålberg E. **Knowledge-based systems and EMG**. In Desmedt JE, editor, Computer-Aided Electromyography and Expert Systems. Pergamon Press. 1989. p. 249-253

Andreassen S, Jensen FV, Andersen SK, Falck B, Kjærulff U, Woldbye M et al. **MUNIN: an expert EMG assistant**. In Desmedt JE, editor, Computer-Aided Electromyography and Expert Systems. Pergamon Press. 1989. p. 255-277

Toft E, Sinkjær T, Andreassen S. **Mechanical and electromyographic responses to stretch of the human anterior tibial muscle at different levels of contraction**. Experimental Brain Research. 1989;74:213-219. doi: 10.1007/BF00248294

Olesen KG, Kjærulff UB, Jensen F, Jensen FV, Falck B, Andreassen S et al. **A MUNIN network for the median nerve: a case study on loops**. Applied Artificial Intelligence. 1989;3(2-3):385-403.

Andreassen S, Selmar P, Christiansen B, Rasmussen A. **Measurement of MUP parameters**. In Proceedings of the III International Conference on Computerised and Single Fiber EMG, 5-8 June 1988, Cyprus. 1988. p. 38

Andreassen S, Andersen SK, Falck B, Jensen FV, Rosenfalck A. **Pathophysiological features used to describe the state of nerve segments and muscles in the expert EMG assistant MUNIN**. In IIIth International Conference on Computerised and Single Fiber EMG, 5-8 June 1988, Cyprus. 1988. p. 54

Andersen SK, Andreassen S, Falck B, Jensen FV, Kjærulff U, Rosenfalck A et al. **MUNIN: an expert EMG assistant**. In Proceedings of the III International Conference on Computerised and Single Fiber EMG, 5-8 June 1988, Cyprus. 1988. p. 52

Albæk S, Andreassen S, Falck B, Jensen FV, Rosenfalck A, Sørensen AR et al. **An interactive neuroanatomy guide for clinical electromyography**. In Proceedings of the III International Conference on Computerised and Single Fiber EMG, 5-8 June 1988, Cyprus. 1988. p. 53

Sinkjær T, Toft E, Andreassen S, Hornemann BC. **Muscle stiffness in human ankle dorsiflexors: intrinsic and reflex components**. Journal of Neurophysiology. 1988;60(3):1110-1121.

Nandedkar SD, Sanders DB, Stålberg EV, Andreassen S. **Simulation of concentric needle EMG motor unit action potentials**. Muscle & Nerve. 1988;11(2):151-159. doi: 10.1002/mus.880110211

Michler L, Møller E, Bakke M, Andreassen S. **On-line analysis of natural activity in muscles of mastication**. Journal of Craniomandibular Disorders. 1988;2(2):65-82.

Toft E, Sinkjær T, Andreassen S. **EMG responses at varying stretch amplitudes in anterior tibial muscle at different levels of voluntary contraction in humans**. In Society for Neuroscience 17th Annual Meeting, 16-21 November 1987, New Orleans, LA, USA: Abstract Book, Vol. 13. 1987. p. 426.4

Toft E, Sinkjær T, Andreassen S. **Strækrefleksens elektromyografiske udseende som funktion af baggrundskraften**. In Dansk Neurologisk Selskab, 1987. 1987

Sinkjær T, Toft E, Andreassen S. **Muskeltonus med stigende kontraktionsgrad ved stræk af en ekstremitet**. In Dansk Neurologisk Selskab, 1987. 1987

Andreassen S, Arendt-Nielsen L. **Conduction velocity of motor unit action potentials in human anterior tibial muscle as a new size principle parameter**. In Society for Neuroscience 17th Annual Meeting, 16-21 November 1987, New Orleans, LA, USA: Abstract Book, Vol. 13. 1987. p. 332.15

Jensen FV, Andersen SK, Kjærulff U, Andreassen S. **MUNIN: on the case for probabilities in medical expert systems : a practical exercise**. In Fox J, Fieschi M, Engelbrecht R, editors, Proceedings of the European Conference on Artificial Intelligence in Medicine, AIME 87, 31 August-3 September 1987, Marseilles, France. Springer. 1987. p. 149-160. (Lecture Notes in Medical Informatics; No. 33).

Andreassen S, Woldbye M, Falck B, Andersen SK. **MUNIN: a causal probabilistic network for interpretation of electromyographic findings**. In Proceedings of the 10th International Joint Conference on Artificial Intelligence, 1987, Milano, Italy. 1987. p. 366-372

Andersen SK, Andreassen S, Woldbye M. **Knowledge representations for diagnosis and test planning in the domain of electromyography**. In Boulay BD, Hogg D, Steels L, editors, Advances in Artificial Intelligence II: Seventh European Conference on Artificial Intelligence, ECAI-86, 20-25 July 1986, Brighton, United Kingdom. Amsterdam: North-Holland. 1987. p. 461-472

Andreassen S. **Methods for computer-aided measurement of motor unit parameters**. In Ellingson RJ, Murray NMF, Halliday AM, editors, The London Symposia. Amsterdam: Elsevier. 1987. p. 13-20. (EEG Suppl.; No. 39).

Jensen FV, Andersen SK, Kjærulff U, Andreassen S. **A causal network prototype in the domain of electromyography: an implementation of coherent probabilistic methods**. Aalborg: Institut for Elektroniske Systemer, Aalborg Universitetscenter, 1987. 18 p. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 87-8).

Woldbye M, Andreassen S, Jensen FV, Andersen SK. **Computer-aided planning of EMG examinations**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S113. doi: 10.1016/0013-4694(87)92218-8

Toft E, Sinkjær T, Andreassen S, Hornemann BC. **Muscle stretch at different levels of voluntary contraction: Part I - Reflex contributions to the mechanical response**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S104. doi: 10.1016/0013-4694(87)92181-X

Sørensen AR, Andreassen S, Kjærulff UB, Rosenfalck A. **Neuroanatomical guidance for EMG tests**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S99. doi: 10.1016/0013-4694(87)92161-4

Sinkjær T, Toft E, Andreassen S, Hornemann BC. **Muscle stretch at different levels of voluntary contraction: Part II - EMG responses**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S97. doi: 10.1016/0013-4694(87)92154-7

Selmar P, Andreassen S, Rasmussen A. **Automatic measurement of MUP durations**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S94. doi: 10.1016/0013-4694(87)92141-9

Rosenfalck A, Sørensen AR, Woldbye M, Andreassen S, Falck B, Rønager J. **A computerized neuroanatomical knowledge base for muscles and peripheral nerves**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S88. doi: 10.1016/0013-4694(87)92119-5

Falck B, Andreassen S, Stålberg E, Jensen FV, Andersen SK. **Microhuman: a simplified model for testing inference in the EMG expert system MUNIN**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S32-S33. doi: 10.1016/0013-4694(87)91893-1

Andreassen S, Andersen SK, Jensen FV, Woldbye M, Rosenfalck A, Falck B et al. **MUNIN: an expert system for EMG**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S4. doi: 10.1016/0013-4694(87)91775-5

Andersen SK, Andreassen S, Falck B, Woldbye M. **Inferring muscle pathophysiology from EMG findings**. Electroencephalography and Clinical Neurophysiology. 1987;66(5):S4. doi: 10.1016/0013-4694(87)91774-3

Andreassen S. **Medicinske ekspertsystemer**. MT : Medicinsk Teknologi. 1987;(3):12-16.

Andreassen S, Arendt-Nielsen L. **Muscle fibre conduction velocity in motor units of the human anterior tibial muscle: a new size principle parameter**. Journal of Physiology. 1987;391:561-571.

Andreassen S, Andersen SK, Woldbye M. **An expert system for electromyography**. In Abstracts, Novel Approaches to the Study of Motor Systems: Satellite Symposium to the XXX International Congress of Physiological Sciences, 10-13 July 1986, Banff, Alberta, Canada. 1986. p. 2-3

Andreassen S. **Acquisition of motor unit potentials by pattern recognition techniques**. Muscle & Nerve. 1986;9(6):569-570. doi: 10.1002/mus.880090614

Stålberg E, Andreassen S, Falck B, Lang H, Rosenfalck A, Trojaborg W. **Quantitative analysis of individual motor unit potentials: a proposition for standardized terminology and criteria for measurement**. Journal of Clinical Neurophysiology. 1986;3(4):313-348.

Rosenfalck A, Andreassen S, Johansen K, Kristensen LE, Nielsen KD, Nielsen F et al. **On line analysis of EEG**. In XIV ICMBE and VII ICMP, 1985, Espoo, Finland. 1985. p. 1-2, Bilag III

Andreassen S. **Automatic acquisition and analysis of motor unit potentials**. In Second International Conference on Computerized Electromyography, 15-19 June 1985, Monte-Carlo, Monaco. 1985. p. 73-75

Andreassen S, Arendt-Nielsen L. **Fatigue of motor units in the human anterior tibial muscle**. Electroencephalography and Clinical Neurophysiology. 1985;61(3):S59, No. W13.08. doi: 10.1016/0013-4694(85)90250-0

Andreassen S. **Feature extraction from EMG**. Electroencephalography and Clinical Neurophysiology. 1985;61(3):S222, No. DPS1.04. doi: 10.1016/0013-4694(85)90842-9

Andreassen S. **Methods for computer measurement of single motor unit potentials**. Electroencephalography and Clinical Neurophysiology. 1985;61(3):S3, No. S 2.03. doi: 10.1016/0013-4694(85)90056-2

Jørgensen N, Andreassen S, Henningsen E. **A microcomputer based neurophysiological measurement system**. Electromyography and Clinical Neurophysiology. 1985;25(7-8):549-551.

Andreassen S. **Automatic mimicking of manual MUP analysis**. In Seminar on Automated Quantitation of Motor Unit Potentials, 20 September 1984, Kansas City, Missouri, USA. Rochester, MN: American Association of Electromyography and Electrodiagnosis. 1984. p. 8

Andreassen S, Hoffer JA. **An estimate of the contributions of length and force feedback to the regulation of soleus muscle stiffness in the premammilary cat**. Aalborg: Institut for Elektroniske Systemer, Aalborg Universitetscenter, 1984. 38 p. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 85-7).

Andreassen S. **Computerized analysis of motor unit firing**. In Desmedt JE, editor, Computer-Aided Electromyography. Basel: Karger. 1983. p. 150-163. (Progress in Clinical Neurophysiology; No. 10).

Andreassen S, Midtgard F. **Automatic analysis of motor unit potentials**. Electroencephalography and Clinical Neurophysiology. 1983;56(3):S39, No. F6. doi: 10.1016/0013-4694(83)92051-5

Andreassen S, Bar-On E. **Estimation of motor unit twitches**. IEEE Transactions on Biomedical Engineering. 1983;BME-30(11):742-748. doi: 10.1109/TBME.1983.325189

Andreassen S, Hoffer JA. **Reflex action on soleus muscle stiffness in the premammillary decerebrate cat**. Acta Physiologica Scandinavica. Supplementum. 1982;(508):29, No. 41.

Andreassen S. **Mikrodatamat til On-line signalanalyse: samspillet mellem hardware og software i en tidskritisk analyse af tyggemusklernes belastning**. Elektronik. 1982;1982(4):24-25.

Jørgensen N, Andreassen S, Henningsen E. **A microcomputer based neurophysiological measurement system**. In Öberg PÅ, editor, Proceedings, 5th Nordic Meeting on Medical and Biological Engineering, June 10-13 1981, Linköping, Sweden: 25th Anniversary of the Swedish Society for Medical Physics and Medical Engineering, June 15-17 1981, Umeå, Sweden. Linköping: Department of Biomedical Engineering, Linköping University. 1981. p. 88-90

Andreassen S, Hoffer JA. **Mathematical modelling of the stretch reflex**. In Öberg PÅ, editor, Proceedings, 5th Nordic Meeting on Medical and Biological Engineering, June 10-13 1981, Linköping, Sweden: 25th Anniversary of the Swedish Society for Medical Physics and Medical Engineering, June 15-17 1981, Umeå, Sweden. Linköping: Department of Biomedical Engineering, Linköping University. 1981. p. 36-38

Andreassen S, Bar-On E. **Reconstruction of the twitch from a single motor unit**. In Öberg PÅ, editor, Proceedings, 5th Nordic Meeting on Medical and Biological Engineering, June 10-13 1981, Linköping, Sweden: 25th Anniversary of the Swedish Society for Medical Physics and Medical Engineering, June 15-17 1981, Umeå, Sweden. Linköping: Department of Biomedical Engineering, Linköping University. 1981. p. 207-209

Hoffer JA, Andreassen S. **Limitations in the servo-regulation of soleus muscle stiffness in premammillary cats**. In Taylor A, Prochazka A, editors, Muscle Receptors and Movement: Proceedings of a Symposium held at the Sherrington School of Physiology, St. Thomas's Hospital Medical School, London, on July 8th and 9th, 1980. New York: Oxford University Press. 1981. p. 311-324

Bar-On E, Andreassen S. **Microprocessor-based system for high-speed detection and classification of events and background activity in 24H EEG records**. Electroencephalography and Clinical Neurophysiology. 1981;52(3):S126, No. A-14.05. doi: 10.1016/0013-4694(81)92833-9

Andreassen S, Jørgensen N. **A model for the motor unit potential**. Electroencephalography and Clinical Neurophysiology. 1981;52(3):S116, No. C-4.01. doi: 10.1016/0013-4694(81)92791-7

Andreassen S, Bar-On E. **Estimation of single motor unit twitch during voluntary contraction**. Electroencephalography and Clinical Neurophysiology. 1981;52(3):S126, No. C-4.02. doi: 10.1016/0013-4694(81)92832-7

Hoffer JA, Andreassen S. **Regulation of soleus muscle stiffness in premammillary cats: intrinsic and reflex components**. Journal of Neurophysiology. 1981;45(2):267-285.

Andreassen S, Rosenfalck A. **Relationship of intracellular and extracellular action potentials of skeletal muscle fibers**. Critical Reviews in Bioengineering. 1981;6(4):267-306.

Andreassen S. **Single motor unit recording**. In Feldman RG, Young RR, Koella WP, editors, Spasticity: Disordered Motor Control. Miami, FL: Symposia Specialists. 1980. p. 205-218

Andreassen S. **Brugervejledning til sandtidsmonitoren RTE 80**. Aalborg: Institut for Elektroniske Systemer, Aalborg Universitetscenter, 1980. 48 p. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 80-2).

Rosenfalck A, Andreassen S. **Impaired regulation of force and firing pattern of single motor units in patients with spasticity**. Journal of Neurology, Neurosurgery and Psychiatry. 1980;43(10):907-916. doi: 10.1136/jnnp.43.10.907

Andreassen S, Rosenfalck A. **Regulation of the firing pattern of single motor units**. Journal of Neurology, Neurosurgery and Psychiatry. 1980;43(10):897-906. doi: 10.1136/jnnp.43.10.897

Andreassen S. **Automatic classification of muscle action potentials**. In XII International Conference on Medical and Biological Engineering, V International Conference on Medical Physics, 19-24 August 1979, Jerusalem, Israel: Digest of the combined meeting. Vol. IV. Jerusalem: The Combined Meeting Executive Committee. 1979. p. No. 93.5

Ingerslev D, Andreassen S. **Klassificering af muskelaktionspotentialer i sand tid. Dokumentation: del 2. Programlistninger**. Aalborg: Institut for Elektroniske Systemer, Aalborg Universitetscenter, 1979. 112 p. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 79-1).

Andreassen S, Rosenfalck A. **Double discharges of single motor units**. Acta Neurologica Scandinavica. 1979;60(Supplementum 73):108. doi: 10.1111/j.1600-0404.1979.tb07668.x

Stein RB, Andreassen S, Oğuztöreli MN. **Mathematical analysis of optimal multichannel filtering for nerve signals**. Biological Cybernetics. 1979;32(1):19-24.

Andreassen S, Stein RB, Oğuztöreli MN. **Application of optimal multichannel filtering to simulated nerve signals**. Biological Cybernetics. 1979;32(1):25-33.

Hoffer JA, Andreassen S. **Factors affecting the gain of the stretch reflex and soleus muscle stiffness in premammillary cats**. In 8th Annual Meeting of the Society for Neuroscience, 5-9 November 1978, St. Louis, Missouri, USA : Abstract Book, Vol. 4. Bethesda, MD: Society for Neuroscience. 1978. p. 297

Rosenfalck A, Andreassen S. **Firing pattern of individual motor unit potentials during voluntary effort**. In Asmussen E, Jørgensen K, editors, Biomechanics VI: Proceedings of the Sixth International Congress of Biomechanics, 1977, Copenhagen, Denmark. Vol. 1. Baltimore, MD: University Park Press. 1978. p. 183-197. (International Series on Biomechanics; No. 2A).

Ingerslev D, Andreassen S. **Klassificering af muskelaktionspotentialer i sand tid. Dokumentation: del 1**. Aalborg: Institut for Elektroniske Systemer, Aalborg Universitetscenter, 1978. 162 p. (Aalborg Universitetscenter. Institut for Elektroniske Systemer - Rapport; No. 78-2).

Andreassen S. **Interval pattern of single motor units**. Aalborg: Aalborg Universitetsforlag, 1978. 219 p. (Series in Biomedical Engineering; No. 1).

Andreassen S, Rosenfalck A. **Impaired regulation of the firing pattern of single motor units**. Muscle & Nerve. 1978;1(5):416-418. doi: 10.1002/mus.880010514

Andreassen S, Rosenfalck A. **Recording from a single motor unit during strong effort**. IEEE Transactions on Biomedical Engineering. 1978;BME-25(6):501-508. doi: 10.1109/TBME.1978.326283

Andreassen S. **Interval pattern of single motor units**. Copenhagen: Electronics Laboratory. Technical University of Denmark, 1977.

Andreassen S, Rosenfalck A. **Single motor unit recording**. In Proceedings of the IV Nordic Meeting on Medical and Biological Engineering, 29 June-2 July 1977, Lyngby/Copenhagen, Denmark. 1977. p. 19.1-19.3

Rosenfalck A, Andreassen S. **Correlation between adjacent motor unit intervals**. Electroencephalography and Clinical Neurophysiology. 1977;43(4):592-593, No. M030. doi: 10.1016/0013-4694(77)90324-8

Andreassen S, Rosenfalck A. **Recording from a single motor unit during strong effort**. Electroencephalography and Clinical Neurophysiology. 1977;43(4):593, No. M031. doi: 10.1016/0013-4694(77)90324-8

Andreassen S, Rosenfalck A. **The correlation coefficient of successive intervals between discharges of motor units as an indicator of motor control**. Acta Physiologica Scandinavica. Supplementum. 1976;440:95, No. 131.

Andreassen S. **Automatic separation of multi-unit electromyographic recordings**. In Proceedings of the III Nordic Meeting on Medical and Biological Engineering, Tampere, Finland. 1975. p. 8.1-8.3