

CURRICULUM VITAE –

Mats Mellander M.D., Ph.D., Associate professor

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Nationality

Swedish

Date and place of birth

October 16th 1947 in Uppsala (Sweden)

Present position

Associate professor of Pediatrics and Consultant Fetal and Pediatric Cardiology at the Department of Pediatric Cardiology, The Queen Silvia Childrens Hospital, Sahlgrenska University Hospital, Gothenburg, Sweden. Head of fetal cardiology services since its start in1990.

QUALIFICATION AND EDUCATION HISTORY

My medical education was at the Faculty of Medicine, University of Gothenburg, Sweden.

Bachelor of Medicine and Surgery, Sweden	20/05/1974
Registered as a licensed physician, Sweden	04/06/1974
Fully qualified medical practitioner, Sweden	04/06/1974
Specialist of Pediatrics, Sweden	14/10/1981
Specialist of Pediatric Cardiology, Sweden	29/11/1985

Specialist of Neonatology, Sweden

02/02/1993

CLINICAL WORK

Clinical work experience after primary medical qualification - summarized

General Pediatrics

Department of Pediatrics, The Queen Silvia Childrens Hospital, Sahlgrenska University Hospital, Gothenburg, Sweden.

Duration	6 years	
Periods	Start	End
	17/06/74	22/09/74
	16/01/76	05/10/80
	01/11/82	30/09/83

Neonatal Intensive Care

The first period was at Vanderbilt University, Nashville, Tennessee, head Professor Mildred Stahlman. The second period was at the Childrens Hospital in Mölndal, Sweden head Professor Ragnar Olegård.

duration	2 years and 6 months	
periods	start	end
	27/07/81	31/10/82
	01/10/92	31/12/93

Pediatric and Fetal Cardiology

duration	31 years	
periods	start	end
	01/10/83	30/09/92
	01/01/94	continuing

Centres

Both periods have been at the Department of Pediatrics, Division of Pediatric Cardiology, The Queen Silvia Children's Hospital in Gothenburg, Sweden, except for 6 months January to July 2006 when I was employed as a consultant in Fetal and Pediatric Cardiology at The Royal Brompton Hospital and Imperial College in London.

Clinical work experience after primary medical qualification - detailed (Please note: all appointments have been 40 hours per week).

June 1974-August 1974, Pediatrics, Sahlgrenska university Hospital, Queen Silvia Childrens Hospital, Gothenburg, Sweden

September 1974-August 1975

Military service, Sandö-school, Kramfors, Sweden. This was an International Development education, approved by the government as an alternative to regular military service.

September 1975-December 1975

Primary Care. Jokkmokk Health Care Center, Jokkmokk, Sweden

January 1976-October 1980

Pediatrics, Sahlgrenska university Hospital, Queen Silvia Childrens Hospital, Gothenburg, Sweden

November 1980-March 1981

Infectious Diseases, Sahlgrenska university Hospital, Gothenburg, Sweden

April 1981-June 1981

Child Psychiatry, Sahlgrenska university Hospital, Gothenburg, Sweden

July 1981-September 1982

Clinical and Research Fellow, Neonatal Intensive Care Unit, Vanderbilt University,
Nashville, Tennessee, USA, Head Professor Mildred Stahlman

October 1982-September 1983

Consultant, General Pediatrics, Sahlgrenska university Hospital, Queen Silvia Childrens
Hospital, Gothenburg, Sweden

October 1983-September 1992

Consultant, Pediatric Cardiology, Sahlgrenska university Hospital, Queen Silvia Childrens
Hospital, Gothenburg, Sweden

October 1992-December 1993

Consultant, Pediatric Cardiology and General Pediatrics, Mölndal Hospital, Mölndal,
Sweden

January 1994-December 2005

Consultant, Pediatric Cardiology, Sahlgrenska university Hospital, Queen Silvia Childrens
Hospital, Gothenburg, Sweden

January 2006-July 2006

Consultant, Fetal and Pediatric Cardiology, Royal Brompton Hospital and Imperial
College, London, United Kingdom

August 2006-October 2008

Consultant, Pediatric Cardiology, Sahlgrenska university Hospital, Queen Silvia Childrens
Hospital, Gothenburg, Sweden

November 2008-April 2009

Global Safety Physician, AstraZeneca, Mölndal, Sweden

May 2009-December 2016

Consultant, Pediatric Cardiology, Sahlgrenska university Hospital, Queen Silvia Childrens Hospital, Gothenburg, Sweden

RESEARCH

PhD

Date 26/11/1987

Title

Patent Ductus Arteriosus in Preterm Infants. Studies on Diagnosis, Hemodynamics and Management.

Clinical work and Research abroad

Fifteen months as a research fellow in neonatal intensive care at Vanderbilt University, Nashville, Tennessee, USA, 1981-1982. Head Professor Mildred Stahlman

Six months 2006 as a fetal and pediatric cardiology consultant at Royal Brompton Hospital/Imperial College, London, U.K., in cooperation with Professor Helena Gardiner.

Research grants

50% research position 2009-2012, Swedish Heart Lung Foundation, applying for extension 2015-2016

Research grants SEK 1 750 000 2008-2016, Swedish Heart Lung Foundation

Awards

Young Investigator Award 1982, American Academy of Pediatrics, Section on Perinatal Pediatrics, New York, New York, October 1982.

Teaching

Involved in teaching medical students and nurses on a regular basis since 1976.

Administration and memberships

Secretary of the Swedish Pediatric Cardiology Association 1997-1999

Vice President of the Swedish Pediatric Cardiology Association 1999-2001

President of the Swedish Pediatric Cardiology Association 2001-2004

Council member of the Association for European Paediatric Cardiology (AEPC) 2001-2004.

Secretary of the Fetal Working group of AEPC 2002 – 2011

Member of “Steering group for European Multicentre Study on Fetal Aortic Stenosis 2008-continuing

Member of “Steering Committee of the Fetal Cardiac Intervention Registry”, ett nytt internationellt patientregister utgående från Brigham and Women´s and the Children´s Hospitals, Boston och University of California, San Fransisco i samarbete med University Hospitals Leuven, Belgien. 2010-continuing

Member of the Swedish Pediatric Cardiology Association, 1983 - continuing

PUBLICATIONS

(abstracts and presentations at national and international meetings only shown for 2015-16)

1. Jashari H, Lannering K, Ibrahim P, Djekic D, **Mellander M**, Rydberg A, Henein MY. Persistent reduced myocardial deformation in neonates after CoA repair. Int J Cardiol 2016;221:886-891
2. Gardiner H, Kovacevic A, Tulzer G, Sarkola T, Herberg U, Dangel J, Öhman A, Bartrons J, Carvalho J, Jicinska H, Fesslova V, Averiss I, **Mellander M**; Fetal Working Group of the AEPC. Natural history of 107 cases of fetal aortic stenosis

from a European multicenter retrospective study. *Ultrasound Obstet Gynecol.* 2016;48:373-81

3. Bratt E, Järholm S, Ekman-Joelsson B, Mattsson L, **Mellander M**. Parent's experiences of counselling and their need for support following a prenatal diagnosis of congenital heart disease - a qualitative study in a Swedish context. *BMC Pregnancy Childbirth.* 2015 Aug 15;15:171. doi: 10.1186/s12884-015-0610-4
4. Moon-Grady AJ, Morris SA, Belfort M, Chmait R, Dangel J, Devlieger R et al. International Fetal Cardiac Intervention Registry: A Worldwide Collaborative Description and Preliminary Outcomes. *J Am Coll Cardiol.* 2015 Jul 28;66(4):388-99
5. Lannering K, Bartos M, **Mellander M**. Late diagnosis of coarctation despite prenatal ultrasound and postnatal pulse oximetry. *Pediatrics* 2015;106:e406-12
6. Ekman-Joelsson BM, **Mellander M**, Lagnefeldt L, Sonesson SE. Foetal tachyarrhythmia treatment remains challenging even if the vast majority of cases have a favourable outcome. *Acta Paediatr.* 2015;104:1090-7
7. Bartos M, Lannering K, **Mellander M**. Pulse oximetry screening and prenatal diagnosis play complimentary roles in reducing risks in simple transposition of the great arteries. *Acta Paediatr.* 2015;104:557-65
8. **Mellander M**, Gardiner H. Fetal therapy, what works? – An overview. *Cardiol Young* 2014;24(Suppl 2):36-40
9. de-Wahl Granelli A, Meberg A, Ojala T, Steensberg J, Oskarsson G, **Mellander M**. Nordic pulse oximetry screening – implementation status and proposal for uniform guidelines. *Acta Paediatr* 2014; 103:1136-42

10. Kovacevic A, Roughton M, **Mellander M**, Öhman A, Tulzer G, Dangel J, Magee AG, Mair R, Ghez O, Schmidt KG, Gardiner HM. Fetal aortic valvuloplasty: investigating institutional bias in surgical decision-making. *Ultrasound Obstet Gynecol.* 2014;44:538-44
11. **Mellander M**. Diagnosis and management of life-threatening cardiac malformations in the newborn. *Semin Fetal Neonatal Med* 2013;18:302-10
12. Öhman A, Strömvall-Larsson E, Nilsson B, **Mellander M**. Pulse oximetry home monitoring in infants with single ventricle physiology and a surgical shunt as the only source of pulmonary blood flow. *Cardiol Young* 2012;23:75-81
13. Seale AN, Carvalho JS, Gardiner HM, **Mellander M**, Roughton M, Simpson J, Tometzki A, Uzun O, Webber SA, Daubeney PEF. Total anomalous pulmonary venous connection: Impact of prenatal diagnosis. *Ultrasound Obstet Gynecol* 2012;40:310-8
14. Eliasson H, Sonesson SE, Sharland G, Granath F, Simpson JM, Carvalho JS, Jicinska H, Tomek V, Dangel J, Zielinsky P, Rsepondek-Liberska M, Freund MW, **Mellander M**, Bartrons J, Gardiner HM; Fetal Working Group of the European Association of Pediatric Cardiology. Isolated atrioventricular block in the fetus: a retrospective, multinational, multicenter study of 175 patients. *Circulation* 2011;124:1919-26
15. Ambrosi A, Salomonsson S, Eliasson H, Zeffer E, Skog A, Dzikaite V, Bergman G, Fernlund E, Tingström J, Theander E, Rydberg A, Skogh T, Ohman A, Lundström U, **Mellander M**, Winqvist O, Fored M, Ekblom A, Alfredsson L, Källberg H, Olsson T, Gadler F, Jonzon A, Kockum I, Sonesson SE, Wahren-Herlenius M. Development of heart block in children of SSA/SSB-autoantibody-positive women

is associated with maternal age and displays a season-of-birth pattern. *Ann Rheum Dis* 2011;71:334-40

16. Salomonsson S, Dzikaite V, Zeffer E, Eliasson H, Ambrosi A, Bergman G, Fernlund E, Theander E, Ohman A, Rydberg A, Skogh T, Wållberg-Jonsson S, Elfving A, Fored M, Ekblom A, Lundström U, **Mellander M**, Winqvist O, Sonesson SE, Gadler F, Jonzon A, Wahren-Herlenius M. A population-based investigation of the autoantibody profile in mothers of children with atrioventricular block. *Scand J Immunol* 2011;74:511-7
17. Thorlacius EM, **Mellander M**, Synnergren M, Kokinsky E. Late eosinophilic pleural effusion after cardiac surgery in a neonate – prompt response to corticosteroid therapy. *Paediatr Anaesth* 2009;19:633
18. de-Wahl Granelli A, Wennergren M, Sandberg K, **Mellander M**, Bejlum C, Inganäs L, Eriksson M, Segerdahl N, Agren A, Ekman-Joelsson BM, Sunnegårdh J, Verdicchio M, Ostman-Smith I. Impact of pulse-oximetry screening on the detection of duct-dependent congenital heart disease: a Swedish prospective screening study in 39 899 newborns. *BMJ* 2009;8;338:a3037. doi: 10.1136/bmj.a3037
19. Matsui H, **Mellander M**, Roughton M, Jicinska H, Gardiner HM. Morphological and physiological predictors of fetal aortic coarctation. *Circulation* 2008;28;118(18):1793-801
20. Pasquini L, **Mellander M**, Seale A, Matsui H, Roughton M, Ho SY, Gardiner HM. Z Scores of the fetal aortic isthmus and duct: an aid to assessing arch hypoplasia. *Ultrasound Obstet Gynecol* 2007;29(6):628-33

21. **Mellander M**, Berntsson L, Nilsson B: Quality of life in children with classic hypoplastic left heart syndrome. *Acta Paediatr* 2007;96(1):53-7
22. Nilsson B, **Mellander M**, Sudow G, Berggren H: Results of staged palliation for hypoplastic left heart syndrome: A complete population based series. *Acta Paediatr* 2006;95(12):1594-600
23. **Mellander M**, Sunnegårdh J: Failure to diagnose critical heart malformations in newborns before discharge – an increasing problem? *Acta Paediatr* 2006;95(4):407-13
24. de Wahl Granelli A, **Mellander M**, Sunnegårdh J, Sandberg K, Östman-Smith I: Screening for duct-dependent congenital heart disease with pulse oximetry: a critical evaluation of strategies to maximise sensitivity. *Acta Paediatr* 2005;94(11):1590-1596
25. **Mellander M**: Perinatal management, counselling and outcome of fetuses with congenital heart disease. Review. *Semin Fetal Neonatal Med* 2005;10(6):586-93
26. **Mellander M**. Fetal kardiologi. Book chapter in "Samlingsvolym: Medfödda hjärtfel hos vuxna", eds Mikael Dellborg and Jan Sunnegårdh, 2005, ISBN 91 86058 983, publisher AstraZeneca Sverige AB.
27. Åmark K, Mattsson LÅ, Sunnegårdh J, **Mellander M**: Limited value of prenatal risk group screening for heart abnormalities. Time for general screening?. *Läkartidningen* 2004;101(48):3882, 3884-6, 3888-9
28. Allan L, Dangel J, Fesslova V, Marek J, **Mellander M** et al: Recommendations for the practice of fetal cardiology in Europe. *Cardiol Young* 2004;14(1):109-14

29. Larsson ES, Solymar L, Eriksson BO, de Wall Granelli A, **Mellander M**: Bubble contrast echocardiography in detecting pulmonary arteriovenous malformations after modified Fontan operations. *Cardiol Young* 2001;11(5):505-11
30. K Abrahamsson, **M Mellander**, BO Eriksson, E Holme, U Jodal, AG Jönsson, S Lindstedt: Cardiac effects of carnitine deficiency induced by pivalic acid containing antibiotics in children. *Cardiology in the Young* 1997;7:178-182
31. KE Edberg, B Ekström-Jodal, S Göthberg, **M Mellander**, G Mellgren: Högfrekvent oscillationsventilation. Framgångsrik ventilationsteknik vid barnkirurgi. *Läkartidningen* 1996;93(1-2), 62-64
32. K Abrahamsson, **M Mellander**, BO Eriksson, E Holme, U Jodal, A Jonsson, S Lindstedt: Transient reduction of human left ventricular mass in carnitine depletion induced by antibiotics containing pivalic acid. *Br Heart J* 1995;74(6), 656-659
33. LG Friberg, GW Mellgren, **M Mellander**, L Solymar: Transventricular dilation for critical aortic stenosis in neonates. *J Pediatr Surg* 1992;27(8), 1097-1099
34. M Lichtenstein, **M Mellander**, I Milsom, F Westling: The influence of epidural blockade and pethidine administered during delivery on neonatal myocardial performance. *Acta Obstet Gynecol Scand* 1991;70:315-319
35. G Mellgren, LG Friberg, B Eriksson, **M Mellander**, K Ivancev: Effect of subclavian flap angioplasty on growth and circulation of the left front leg in pigs. *Scand J Thorac Cardiovasc Surg* 1990;24(2):105-109
36. **M Mellander**, LE Larsson: Effects of left-to-right ductus shunting on left ventricular output and cerebral blood flow velocity in 3-day-old preterm infants with and without severe lung disease. *J Pediatr* 1988;113:101-109
37. E Kreuger, **M Mellander**, D Bratton, R Cotton: Prevention of symptomatic patent ductus arteriosus with a single dose of indomethacin. *J Pediatr* 1987;111:749-754

38. **M Mellander**, LE Larsson, B Ekström-Jodal, KG Sabel: Prediction of symptomatic patent ductus arteriosus in preterm infants using Doppler and M-mode echocardiography. *Acta Paediatr Scand* 1987;76:553-559
39. **M Mellander**, KG Sabel, K Caidahl, L Solymar, B Eriksson: Doppler determination of cardiac output in infants and children: Comparison with simultaneous thermodilution. *Pediatr Cardiol* 1987;8:241-246
40. G Mellgren, LG Friberg, BO Eriksson, KG Sabel, **M Mellander**: Neonatal surgery for coarctation of the aorta. The Gothenburg experience. *Scand J Thorac Cardiovasc Surg* 1987;21(3):193-197
41. KA Kennedy, P Wilton, **M Mellander**, J Rojas, H Sundell: Effect of epidermal growth factor on lung liquid secretion in fetal sheep. *J Dev Physiol* 1986;8:421-433
42. **M Mellander**, KG Sabel, G Mellgren: Single Doppler detection of left to right shunt through the ductus arteriosus. *Acta Paediatr Scand, Suppl* 1986;329:98-102
43. K Caidahl, **M Mellander**, KG Sabel, B Eriksson: Estimation of stroke volume using Doppler echocardiography and left ventricular echocardiographic dimensions in infants and children. *Acta Paediatr Scand, Suppl* 1986;329:114-119
44. **M Mellander**, B Leheup, DP Lindstrom, C Palme, TP Graham, MT Stahlman and RB Cotton: Recurrence of symptomatic patent ductus arteriosus in extremely premature infants, treated with indomethacin. *J Pediatr* 1984;105:138-143
45. J Bolling, SS Feman, **M Mellander**, R Cotton: The influence of indomethacin on retinopathy of prematurity. *Am J Ophthalmol* 1983;96(2), 254-255

46. **M Mellander**, JG Noren, H Freden, I Kjellmer: Mineralization defects in deciduous teeth of low birthweight infants. *Acta Paediatr Scand* 1982;71:727-733
47. KG Sabel, R Olegård, **M Mellander**, K Hildingsson: Interrelation between fatty acid oxidation and control of gluconeogenic substrates in small-for-gestational-age (SGA) infants with hypoglycemia and with normoglycemia. *Acta Paediatr Scand* 1982;71:53-61

Conference presentations since 2015

Bratt, E-L. ; Järvholm, S. ; Ekman-Joelsson, B-M, Mattson LÅ, **Mellander M.** (2015). Continuing pregnancy following a prenatal diagnosis of a cardiac defect: What support do parents need?, *Cardiology 2015. 18th Annual Update on Pediatric and Congenital Cardiovascular Disease. Challenges and Dilemmas. Feb 11-15, 2015. Scottsdale, Arizona, US.*

Öhman A, Bergman G, Sonesson SE, El-Segaier M, Hanseus K, Malm T, Nilsson B, Rydberg A, **Mellander M.** Hypoplastic Left Heart Syndrome. Epidemiology and Outcome in Sweden 1993-2013. A National Cohort Study. *Cardiology 2015. 18th Annual Update on Pediatric and Congenital Cardiovascular Disease. Challenges and Dilemmas. Feb 11-15, 2015. Scottsdale, Arizona, US.*

Lannering K, Bartos M, **Mellander M.** Failure of early detection of isolated coarctation of the aorta in the newborn. Results of a Swedish population-based study. *Cardiology 2015. 18th Annual Update on Pediatric and Congenital Cardiovascular Disease. Challenges and Dilemmas. Feb 11-15, 2015. Scottsdale, Arizona, US.*

Öhman A, Bergman G, Sonesson SE, El-Segaier M, Hanseus K, Malm T, Nilsson B, Rydberg A, **Mellander M**. The changing epidemiology and outcome in hypoplastic left heart syndrome in Sweden. Results of a national cohort study 1993-2013. *49th Annual Meeting of the Association for European Paediatric and Congenital Cardiology, Prague 20-23 May 2015.*

Bratt, E-L. ; Järvholm, S. ; Ekman-Joelsson, B-M, Mattson LÅ, **Mellander M**. (2015). Which education and support do couples need after a prenatal diagnosis of Congenital Heart Disease?, *49th Annual Meeting of the Association for European Paediatric and Congenital Cardiology, Prague 20-23 May 2015.*

Kovacevic A, Öhman A, Tulzer G, Herberg U, Dangel J; Bartrons J; Carvalho J, Fesslova V, Jicinska H, Sarkola T, Toler A, **Mellander, M**, Gardiner H. Does reversal of flow in the fetal aortic arch in second trimester aortic stenosis predict hypoplastic left heart syndrome? *49th Annual Meeting of the Association for European Pediatric and Congenital Cardiology, Prague 20-23 May 2015.*

Spangenberg K, Lannering K, Helvind M, **Mellander M**, Steensberg J. Coarctations in Denmark and Sweden 2002-2012. *45th Nordic Paediatric Cardiology Meeting, Oslo September, 2015.*