



REPORT

Date: 11-09-2016

Author: Anastasia Topalidou

WG2: Biomechanics and Bioengineering

General Information:

Members

2014-2015: 11 members

2015-2016: 17 members (2 left) = 15 members

STSMs

- 1. Anastasia Topalidou (Greece) – Host: Claudia Meier Magistretti (Switzerland)**
- 2. Maria Healy (ROI) – Host: Corine Verhoeven (Netherlands)**

Publications

No	Authors	Journal	Title	Status
1a	Anastasia Topalidou and Soo Downe	Infrared Physics and Technology	Investigation of the use of thermography for research and clinical applications in pregnant women	Published
2a	Anastasia Topalidou, Soo Downe, Oliver Christ	International Journal of Developmental Neuroscience	Fetal movements, a vital action with deficient assessment: implications for antenatal assessment of neurocognitive development and wellbeing.	In press
3a	Slobodan Sekulic, Ksenija Gebauer-Bukurov, Milan Cvijanovic, Aleksandar Kopitovic, Djordje Ilic, Djordje Petrovic, Ivan Capo, Ivana Pericin-Starcevic, Anastasia Topalidou	Journal of Pain Research	Fetus could be exposed to pain starting from the period between the 12th and 14th of gestation	Accepted
4a	Claudia Meier Magistretti and Anastasia Topalidou	Health Promotion International	“The face of salutogenesis”: The first thermal imaging application	Sumbitted
5a	Slobodan Sekulic, Kopitovic Aleksandar, Djordje Petrovic, Ksenija Gebauer-Bukurov, Ljiljana Martac, Branka Janac, Anastasia Topalidou	Mammals study	Spontaneous and provoked changes of presentation and situs of the guinea pig fetus	Submitted
6a	Anastasia Topalidou, Slobodan Sekulic, Ivana Pericin-Starcevic	<i>Pending</i>	Infrared thermal imaging application in pregnancy (<i>Temporary title</i>)	To be submitted
7a	Slobodan Sekulic, Ivana Pericin-Starcevic et al.	<i>Pending</i>	Pain in anencephalic newborns (<i>Temporary title</i>)	To be submitted
8a	Claudia Meier Magistretti, Anastasia Topalidou et al.	Medical Hypothesis	<i>Pending</i>	To be submitted
9a	Anastasia Topalidou and Soo Downe	<i>Pending</i>	Are the methods estimating fetal movements evidence-based? A scoping review	To be submitted
10a	Anastasia Topalidou, Eleni Hadjigeorgiou Soo Downe	<i>Pending</i>	<i>Pending</i> (Systematic review regarding fetal movements during labor)	To be submitted

11a	Anastasia Topalidou, George Tzagarakis, etc	<i>Pending</i>	Does surface structure distribute or alter the infrared exported characteristics? <i>(Temporary title)</i>	To be submitted
12a	Maria Healy and Corine Verhoeven	<i>Pending</i>	What are midwives perceptions of what normal birth is? <i>(Temporary title)</i>	To be submitted

*These are all publications that will be produced from the WG2. Some of them will be submitted by the end of this year. The rest of them will be submitted by April 2017.

Funds – Grants

No	Participants	Title	Funding Body	Amount	Status
1b	Claudia Meier Magistretti (Switzerland), Sue Brailey (UK) and Anastasia Topalidou (Greece)	ISFB: Salutogenic practice in clinical maternity care	Lucerne University of Applied Sciences and Arts	10,000 CHF	Successful - Awarded
2b	Claudia Meier Magistretti (Switzerland), Anastasia Topalidou (UK) and Franziska Meinecke (Switzerland)	IDS-Project: Thermal imaging methodology use for complex data management and data analysis in interdisciplinary contexts of health	Lucerne University Department of Technology and Architecture	35,000 CHF	Successful - Awarded
3b	Soo Downe (UK), Anastasia Topalidou (UK), Maria Healy (ROI), Claudia Meier Magistretti (Switzerland), Jean Calleja Agius (Malta) et al.	MATiA: MAternity Thermal imaging Application	MRC	496,320 £	Under review
4b	Michael Parker, Maria Healy, Anastasia Topalidou, George Tzagarakis	Utilising entropy analysis as a method to assess fetal wellbeing by extracting cardiotocography signals	HSC TRUST RESEARCH FUND	17,631 £	Under review

Protocols – Possible applications for fund – Patents (IP)

No	Participants	Type	Title	Status
1c	Andria Spyridou, Eleni Hadjigeorgiou, Anastasia Topalidou et al.	Protocol	Cultural adaption and quantitative correlation of KINDEX (valid toll for the psychosocial risk assessment to the obstetric care providers) in Cypriot population applying the Galvanic Skin Resistance (GSR) test during interviews.	Searching for fund for the pilot-phase 1 stage
2c	Anastasia Topalidou, George Tzagarakis et al.	Patent	Method of automatic infrared image processing for research use in psychology and social sciences	“Industrial Property Organization” of Greece, for registration: Patent and Utility Model Certificate (Under review)

Conferences - Presentations

No	Participants	Title	Conference	Status
1d	Anastasia Topalidou, Soo Downe, Oliver Christ	Fetal movements, a viral action with deficient assessment: implications for antenatal assessment of neurocognitive development and wellbeing.	21st Biennial Meeting of the International Society of Developmental Neuroscience: From stem cells to behavior in the normal and diseased nervous system, 11th-14th May, Palais des Congres d' Antibes Juan les Pins, France.	Poster presentation - Presented
2d	Anastasia Topalidou	"Fetal movements: a viral action with a deficient assessment. Are we deluding ourselves that we know what birth is?"	"Healthy Mothers-Happy Children: Neuroendocrinological and Psychosocial Approaches to pregnancy, childbirth and early childhood", European University of Cyprus (EUC) 31.03.2016	Oral presentation – Presented
3d	Anastasia Topalidou and Claudia Meier Magistretti	Unsilencing health in maternity care, from international qualitative data to objective physiological measurements: a salutogenic approach and a critical look	"International Forum for Health Promotion Research" Trondheim, Norway, September 28-30.2016	Oral presentation Accepted

Grant Agreement Period Goals – Related to WG2

- a) GAPG 1 By April 2017, WG1-5 will have submitted for publication detailed descriptions of the current State of the Art in their area (Primary Objective – Secondary Objectives 1-6)

By April 2017 all the publications 1a-12a will be submitted. The State-of –Art in our area will be submitted.

- b) GAPG 3 By April 2017, points of intellectual, theoretical and practical commonality across some or all of the WGs will have been discussed, agreed, and summarized in academic outputs (Secondary objective 6)

All “bridge co-operations” will be agreed in the meeting in Bulgaria and summarized in outputs.

- c) GAPG 4 By April 2017 protocols will be drafted for comparative implementation studies to assess the impact of new and optimal ways of providing maternity care (Secondary objective 1, Secondary objective 2, Secondary objective 3, Secondary objective 4, Secondary objective 5)

Goal already achieved (1b-4b). Two grants are already awarded and two submitted. Another one protocol (1c) is already written and under submission.

- d) GAPG 6 By April 2017, studies will be designed to enable identification and/or development of non-invasive, dynamic, real time methods for assessing mechanical and bio-engineering parameters in vivo for pregnant and laboring women and their fetus (Secondary objective 2)

Goal already achieved. See in tables: 1a, 1a, 6a, 9a, 10a, 12a, 3b,4b.

- e) GAPG 7 By April 2017 protocols for observational studies will be agreed, relating to the assessment of maternal fetal movement during labour (Secondary objective 2)

Goal already achieved. See in tables 10a, 3b.

- f) GAPG 8 By December 2016 studies will be designed to explore the possibility of delineation of optimal movement parameters in pregnancy and labour, and the conditions in which these might be maximized)Secondary objective 1, Secondary objective 2, Secondary objective 3, Secondary objective 4, Secondary objective 5)

Goal already achieved. See all 4 tables.

- g) GAPG 15 By April 2017 all WGs will have agreed which funds to target for experiments designed to describe physiological and hormonal processes during labour and in the early postnatal period (Secondary objective 1, Secondary objective 5)

Goal already achieved. See all 1b, 2b, 3b, 4b.