



NEOMUNE research platform – work package synopses

WP 4.1: NEOMUNE administration and dissemination

1. Related WPs, MG contact person: Synergies with WPs 4 and WP 1.7. MG contact: Stine Bering, Per Sangild

2. Key involved personnel, their institution and mail address (project leader + main study site underlined):

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GB = Governing Board; HP = Head of Project; MG = Management Group; AG = Administrative group; SAB = Scientific Advisory Board

3. Main aim and sub-aims:

Main aim: To develop effective management and leadership of NEOMUNE over the 6-year project period.

- To maintain effective and open leadership via the Management Group (MG) and the Head of Project (HP).
- To obtain maximal inspiration and guidance from the Governing Board (GB) – the strategic advisory board.
- To obtain maximal inspiration and guidance from the Scientific advisory Board (SAB).
- To secure good working collaboration with associated industrial partners.
- To secure the framework for relationships, in part by appropriate scientific, legal and ethical contracts.
- To secure optimal and timely scientific reporting to the Danish Research Councils.
- To secure optimal and timely financial reporting to the Danish Research Councils.
- To secure adequate communication to NEOMUNE participants and to the public (e.g. NEOMUNE website).
- To solve unforeseen scientific and/or managerial conflicts and challenges in NEOMUNE.
- To apply for funding that aims to expand the present activities and extend NEOMUNE beyond 2018.

4. Background and a central hypothesis:

The scientific and administrative leadership in NEOMUNE is divided among partners, affiliated partners and collaborators, as indicated in the original application. While NEOMUNE may provide the main funding for some projects, for others it only constitutes a small part of the total project expenses. NEOMUNE is a dynamic research platform that incorporates and integrates with new synergistic projects as these become apparent. The NEOMUNE research platform aims to expand the total number of interventions, sample analyses and research outputs from studies that are not entirely financed by NEOMUNE.



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The NEOMUNE Management Group (MG) is the main leadership group and members represent the main work areas from infants (GG, VC), pigs (TT), and mice (HF), to the milk and microbiota analyses (DN). The HP (PS) is supported by academic administrators (SB, MC, YL) forming the administrative group (AG) to secure daily administrative matters incl. finances. A Governing Board (GB) is formed to enable to the greatest possible long-term, strategic impact of the project (“strategic advisory board”). The GB will give advice on major strategic decisions regarding a) project leadership and partner structure, b) long-term financial considerations, c) ethical and legal challenges, d) infrastructure, and e) legal contracts among universities, hospitals, and industries. A Scientific Advisory Board (SAB) is formed to provide critical inputs into the scientific quality of NEOMUNE at all work package levels. Based on an annual progress report by the MG, the GB and SAB are invited to give critical comments to the research at all levels (rationale, protocols, analyses, interpretation, publication, societal effect, and leadership structure).

Leadership philosophy in NEOMUNE: To maintain creativity, enthusiasm and results orientation, research groups are given the freedom to work within the given framework defined by NEOMUNE and the MG. The projects that are financed to the largest degree by NEOMUNE have the greatest responsibility to adhere closely to NEOMUNE strategies. In close connection with the GB, SAB and MG, the HP will assist in adapting research plans to obtain the best possible NEOMUNE outcome. We are aware of both potentials and limitations of working closely with industry partners in NEOMUNE. The working relationship is guided by separate Part Project Agreements with each industrial partner on specific parts of the project. Just as important, it is based on respect for the complementary values of university, hospital and industry partners.

We hypothesize that pro-active management and leadership, good communication and adequate trust-building among university, hospital and industry partners in NEOMUNE lead to lasting research and societal outcome.

5. Key analyses and methods:

- Frequent meetings within the MG, with agendas published at the NEOMUNE website and minutes published at a closed collaborator website, and direct information flow to cluster leaders for dissemination at cluster group meetings.
- Contact with the SAB and GB at least once annually.
- Formation of legal contracts among partners.
- Initiate the annual scientific meetings.
- Scientific reports to the Danish Research Councils.
- Financial reports to the Danish Research Councils.
- Maintenance of the NEOMUNE website.

6. Expected results:

- High research output and societal implications of NEOMUNE.
- A reasonable degree of satisfaction among NEOMUNE participants, collaborators and institutions.
- A long term impact of the collaborations in NEOMUNE, beyond the project period.

7. Estimated time frame

Task	2013				2014				2015				2016				2017				2018			
MG meetings	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
MG meeting with GB		x	x	x		x				x				x				x						x
SAB contact		x				x				x				x				x						x
AG meetings				x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Scientific report to DSF						x				x				x				x						x
Financial report to DSF						x				x				x				x						x
Platform contract sign		x																						
Sub-project contracts			x	x	x	x	x	x																

8. Estimated budget from NEOMUNE: 3.0 mio DKK

20-30% salaries for academic administrator, administrative post doc, secretary and HP.

9. Estimated budget from elsewhere: None



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10. Additional comments:

- The total budget for WP 4.1 should be seen in connection with the budgets for WPs 4.2+4.3

WP 4.2: Scientific meetings and results dissemination

1. Related WPs, MG contact person: Synergies with WPs 4. MG contact: Stine Bering

2. Key involved personnel, their institution and mail address (project leader + main study site underlined):

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Yanqi Li, post doc, Clinical and Experimental Nutrition, Univ. Copenhagen, yli@life.ku.dk (15%)

3. Main aim and sub-aims:

- To secure effective exchange of scientific ideas within the NEOMUNE fields and help steer the subprojects.
- To secure effective results dissemination (scientific and/or societal) from NEOMUNE projects, press contact.
- To maximize synergy among individuals, groups and institutions/companies/hospitals within NEOMUNE.

4. Background and a central hypothesis:

NEOMUNE will seek international exposure and impact by hosting a common meeting for central partners and stake holders once per year. Most often this will be held as a satellite meeting to the annual congress of one of two relevant European scientific societies (ESPR or ESPGHAN). In addition to this, a larger NEOMUNE scientific platform meeting will be arranged by the MG to present all active NEOMUNE research activities and results. This will involve all partners, collaborators, research leaders, young investigators and representatives of GB and SAB, aimed to evaluate the overall research. All university-, hospital- and industry-based key personnel, and the SAB, are expected to join at least one main platform meeting per year.

In addition to the general scientific assemblies, sub-meetings are held for clusters of projects (NEOMUNE subgroups, see section 7 below) within NEOMUNE. The MG takes the initiative to formation of such clusters and each group is responsible for reporting back and forth to the MG on both scientific and administrative issues. Furthermore, these clusters are responsible for a newsletter update every three months to involved partners.

Scientific results, both those that confirm or reject NEOMUNE hypotheses, will published in international, recognized journals with relevant review competence and readership. Where relevant, we will aim to co-publish results on the same intervention from different study levels of evidence (infants, pigs, rats, isolated cells). We also seek to co-publish natural and social science results in the same scientific (review) papers. The NEOMUNE website will play a central role for results presentation, using public open access, and web sections closed to the public.

We hypothesize that a minimum two personal meeting encounters for key researchers, and one meeting encounter for the other researchers, are necessary for NEOMUNE project coherence and research output.

Subgroups of project clusters are encouraged to arrange separate meetings as required and report to the MG.

5. Key analyses and methods:

- Effective platform meeting organization initiated by the MG.
- Effective cluster meeting organization initiated by cluster leaders referring to MG.



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- c) Evaluation of meetings by the MG and the cluster leaders.
 d) Appropriate and adequate use of the NEOMUNE website.
 e) Coordination, management, and evaluation of public press related to NEOMUNE.

6. Expected results:

Effective and enjoyable meetings that maximize time and money resources to increase research output.
 Adequate and effective communication of NEOMUNE results to the scientific community and to the public.

7. Estimated time frame

Task	2013			2014			2015			2016			2017			2018		
Congress related meetings	x			x	x		x			x			x			x		
Scientific platform meeting		x	x	x		x		x			x			x			x	
*Sub-group meetings:																		
Infant probiotics (GG)	x		x	x		x	x		x	x		x	x		x	x		x
Infant birth, AB, GM (DN)	x		x	x		x	x		x	x		x	x		x	x		x
Pig +Mice AB/PB/diet (TT,HF)	x		x	x		x	x		x	x		x	x		x	x		x
Piglet gut-brain (AA)	x		x	x		x	x		x	x		x	x		x	x		x

* The indicated frequency of sub-group meetings is shown only as a guideline for expected meeting intervals

8. Estimated budget from NEOMUNE:

0.5 mio DKK. Mainly to cover platform meeting expenses and invitation to GB and SAB members.

9. Estimated budget from elsewhere:

0.5 mio DKK. Local administrative support not funded by NEOMUNE.

10. Additional comments:

- The NEOMUNE research platform consists of a large, diverse number of core participants from hospitals, universities and industry. As such, it cannot be expected that the platform meetings will be able to cover all aspects of the research. Focus is placed on forming scientific cluster groups in NEOMUNE, and corresponding cluster meetings. Clusters are dynamic and are meant to connect research areas that are relatively closely connected in scientific methodology and research questions.



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WP 4.3: Training and education

<p>1. Related WPs, MG contact person: Synergies with WP4.1, 4.2. MG contact: Per Sangild, Gorm Greisen</p>
<p>2. Key involved personnel, their institution and mail address (project leader + main study site underlined): Elin Skytte, personal coach, Comp. Pediatrics and Nutrition, Univ. Copenhagen, els@life.ku.dk (5%) Gorm Greisen, Prof., Neonatology, Copenhagen University Hospital, Gorm.Greisen@regionh.dk (5%, MG) <u>Per Sangild, Prof., Comp. Pediatrics and Nutrition</u>, Univ. Copenhagen, psa@life.ku.dk (5%, MG) Stine Bering, Comp. Pediatrics and Nutrition, Univ. Copenhagen, sbs@life.ku.dk (5%,) Yanqi Li, post doc, Clinical and Experimental Nutrition, Univ. Copenhagen, yli@life.ku.dk (15%) Zhu Yanna, Ass. Prof., School of Public Health, Sun Yat-sen University (5%)</p>
<p>3. Main aim and sub-aims: a) To provide appropriate scientific training for young researchers (PhDs, post docs) in NEOMUNE. b) To provide appropriate leadership training for young researchers (PhDs, post docs) in NEOMUNE. c) To provide possibility for personal counseling and career support for all researchers in NEOMUNE.</p>
<p>4. Background and a central hypothesis: NEOMUNE facilitates training for many young investigators across wide scientific disciplines, and in new collaborative networks that hopefully exceed the NEOMUNE project period. NEOMUNE makes deliberate attempts to place younger researchers, with limited training in leadership positions where they develop leadership skills (e.g. as project leaders, or as part of MG and NEOMUNE subgroups). Careful supervision is required and/or personal counseling is the natural responsibility of a well-functioning research team. Besides the PhD students specifically sponsored by the NEOMUNE funds, the project will create training possibilities for a number of other PhD students and young researchers. To obtain and maintain enthusiasm for biological research, it is important that young scientists are able to put their own scientific method and understanding into a greater methodological and scientific perspective. Working with scientists from other fields (even across the domains of natural, social and human science) and across countries, make it clear that the basis of scientific epistemology differ widely. Alone, or with other university partners, NEOMUNE will seek to establish short term courses on career development and personal integrity in work life, especially directed towards younger research staff. PhD students will be encouraged to participate in the 6 ECTS PhD course in “Food, Medicine and Philosophy in East and West” (http://www.courseinfo.life.ku.dk/Kurser/phd_fmp.aspx; lead by PS) and in a 2 ECTS course in Pediatric Research (lead by GG). These courses will train students to know the potentials and limitations of research methods directed towards infants and children. The courses will seek to place maximal focus on aspects that are relevant for NEOMUNE. <i>We hypothesise that careful attention to the widely differing career and personal goals of younger researchers, and the need for international work exchange, will enable NEOMUNE to foster mature researchers and good leaders with personal integrity.</i></p>
<p>5. Key analyses and methods: a) A PhD course in Pediatric Research will be offered to PhD students each year of the project. b) A PhD course in Food, Medicine and Philosophy in East and West is offered every other year. c) The younger investigators will gather separately in young investigator subgroups. d) Younger investigators will be offered day-course in work methods and career development. e) A large attempt will be made to exchange researchers among different parts of NEOMUNE, from Asia to Europe and US, from basic science to clinical practice, from academia to industry.</p>

6. Expected results:

- Development of senior researchers that become not only good researcher but also good research leaders
- Development of senior researchers that communicate well across scientific fields and work cultures
- Development of senior researchers that have good of integrity in work life, and good work-private balance
- Increased overall productivity of the work and international impact

7. Estimated time frame and plans for international personnel exchange

Task	2013			2014			2015			2016			2017			2018		
Pediatr. Res. course	x			x			x			x			x			x		
FMP PhD course			x						x						x			
China personnel to DK	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
DK personnel to China	x	x		x			x			x			x			x		
Europe personnel to DK					x	x	x	x	x	x	x	x	x	x	x	x	x	x
DK personnel to Europe			x			x			x			x			x			x
US personnel to DK		x			x			x			x			x			x	
DK personnel to US			x			x			x			x			x			x

8. Estimated budget from NEOMUNE:

0.25 mio DKK. Specific exchange programs, even if directly related to NEOMUNE, will have to seek additional funding

9. Estimated budget from elsewhere:

0.5 mio DKK. Funding sought from external sources and internal university co-funding. Until now the educational program has received funding from C Van Foundation (Daloon) to facilitate student exchange (0.1 mio DKK), USA Pediatric Research Foundation (0.05 mio DKK), Carlsberg Foundation (0.5 mio DKK PhD course in China) and ARLA Foods amba (1.0 mio DKK for PhD course in China)

10. Additional comments:

- Basic science researchers in NEOMUNE are encouraged to become familiar with clinical routines at hospital partners in NEOMUNE.
- Clinical staff related to NEOMUNE hospital departments are encouraged to become familiar with the scientific routines of basic science partners in NEOMUNE.
- The exchange of researchers among different NEOMUNE labs constitutes an additional important training activity. Specific university-university collaboration agreements will be sought between specific partners (e.g. Univ. Copenhagen, Sun Yat-sen University).
- NEOMUNE researchers are encouraged to take part in academic teaching activities when this is NEOMUNE-relevant and possible within the set time as defined by the research plan.