



General data	
PPP number	TKI AF-14510
Title	Casein and Recovery
Theme	Voeding en gezondheid
Research Institute(s) involved	Maastricht University
Project leader research (name + email address)	Luc JC van Loon l.vanloon@maastrichtuniversity.nl
Coordinator (on behalf of private parties)	Michiel Sytsma
Contact person of government	
Total project budget (k€)	836.000 euro
Project website address	www.tifn.nl
Starting date	1-1-2014
Final date	31-12-2016

Approval coordinator/consortium	
The final report has to be discussed with the coordinator/consortium. The TKI(s) like to be informed regarding potential comments on the final report.	
The annual report is by the coordinator on behalf of the consortium	<input checked="" type="checkbox"/> approved <input type="checkbox"/> not approved
Potential comments regarding the final report	n/a

Brief description content/aim PPP
What is the matter and what does the project contribute? What does the project deliver and what are the effects of its delivery?
To define the digestion and absorption kinetics of micellar casein and caseinate in vivo in healthy individuals. To compare the impact of whey versus casein protein ingestion prior to sleep to stimulate overnight myofibrillar and mitochondrial protein synthesis rates during overnight recovery from endurance type exercise in young, recreational athletes.

Mutations with respect to the original project plan and follow-up	
Have there been changes in the consortium/project partners? If so, which.	No
Have there been factual changes in the project?	No
Has a patent application been filed from this PPP (or a priority filing)?	No
Has a spin-off developed from this project (contract research, additional funding or spin-off activity)?	No

How many years will the private parties need in practice to use results from this project?	In a few years
How did the project contribute to the development of the research organisation involved (e.g. scientific track record, new technology, new collaboration)?	N/a
Will there be a follow-up for the project such as a new project or a new collaboration? If so, please explain.	N/a

<p>Results</p> <p>What tangible results the project has yielded? The first study has been performed, the data have been analysed and presented to the partners. The manuscript has been submitted to a journal and is currently under review.</p> <p>The second study is currently ongoing (13/36 subjects completed). We have successfully recruited a first subject after the COVID19 lockdown.</p> <p>What are the effects of these results and for whom? Ongoing</p> <p>What has not been delivered according to the original project plan and for what reason(s)? The production of intrinsically labeled protein for the first study did not succeed. As a result the study design was altered (plasma amino acid response as main outcome). The results of the first study were surprising. Therefore, there was much discussion with the partners to decide the protocol of the second study.</p>
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<p>Deliverables (give a short description per project deliverable)</p> <p>Study 1: The plasma amino acid response following the ingestion of 3 different types of casein protein has been assessed. Cross-linked sodium caseinate is more rapidly digested when compared to micellar casein and calcium caseinate. Protein processing can strongly modulate the post-prandial rise in plasma amino acid bioavailability <i>in vivo</i> in humans.</p> <p>Study 2: Ongoing</p>
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Number of delivered products in 2018 (give titles and/or descriptions of products, or a link to the products on the project website, or other public websites).			
Scientific articles	Reports	Articles in professional journals	Lectures/workshops
0	0	0	0
Titles/descriptions of prominent products in 2018 (max. 5) and their target groups			

Annex: Titles of deliverables or a link to products on the project website or other public websites