

## Healthy plant-based diets may be associated with lower risk of COVID-19

Catherine Lefranc-Millot, Clémentine Thabuis, Daniel Wils, Laetitia Guérin-Deremaux – Roquette, R&D Nutrition and Health

In a very recent peer-reviewed article<sup>1</sup>, Merino et al. investigated the potential association between diet quality and risk severity of COVID-19, using the data from 592,571 participants of the smartphone-based COVID-19 Symptom Study.<sup>2</sup> The information about the pre-pandemic period and consumption of healthy plant-based foods (fruits, vegetables, wholegrains...) was collected thanks to questionnaires and qualified with validated scores. It appeared that high diet quality was associated with lower risks and severity of COVID-19, which is consistent with the benefits of a plant-based diet that Roquette supports as a global ingredient supplier for nutrition and health.

Non-communicable diseases related to poor metabolic health such as obesity, type two diabetes, or consecutive hypertension have been demonstrated to increase the risk and severity of COVID-19. Excess adiposity or preexisting liver disease might be associated with an increased risk of death from COVID-19.<sup>3,4</sup> But thanks to the results of this new [study](#), it seems that the quality of the diet can be associated with those decreased risk and severity, and specifically, of crucial importance, a dietary pattern characterized by healthy plant foods consumption.

Roquette manufactures functional and nutritional plant-based ingredients helping to maintain healthy lifestyles and adapt to large or individualized requirements. Plant-based diets have several demonstrated beneficial attributes: with an interesting essential amino acids profile of protein that can be combined in the diet with other protein sources to meet specific requirements, they are low in calories, have low fat and high fiber contents and provide vitamins.

At Roquette, we propose a large range of fibers, proteins, and sugar substitutes from various plant-based sources that fit into the targeted benefits highlighted in peer-reviewed articles thanks to the health benefits we have demonstrated through various human studies.

Among those plant-based ingredients, we offer:

- **Fiber**

- NUTRIOSE® is a soluble dietary fiber from wheat or maize, with a high digestive tolerance and excellent process stability.
- In addition to its low GI properties, our [NUTRIOSE® soluble fiber](#) is a non-viscous fiber that is mainly used as a substrate for bacteria in the colon conferring subsequent health benefits. That makes NUTRIOSE® a perfect complement to our everyday well-being and a multipurpose ingredient for both fiber enrichment and sugar reduction.
- High-level scientific studies have demonstrated that NUTRIOSE® can positively support the care of the gut microbiota,<sup>5</sup> blood glucose control,<sup>6</sup> satiety, and weight management<sup>6, 7, 8</sup> and provide sustained energy release.<sup>9</sup>

- **Plant proteins**

- With 85% of protein content, our pea-based protein isolate [NUTRALYS® pea protein](#) has a premium nutritional quality: it offers a well-balanced amino acids profile and easy digestibility from 94%<sup>10</sup> to 97%.<sup>11</sup> It is also characterized by a PDCAAS (Protein Digestibility Corrected Amino Acid Score) from 81 to 93 (depending on the reference pattern used) and a DIAAS (Digestible Indispensable Amino Acid Score) in humans up to 100%.<sup>10</sup>
- [NUTRALYS®](#) pea protein contains no cholesterol and is very low in unsaturated fat.
- Peer-reviewed clinical studies back up the performance of NUTRALYS® pea protein in the areas that health-conscious eaters care about today: satiety and weight management,<sup>12</sup> sports nutrition,<sup>13,14</sup> blood glucose management,<sup>15</sup> clinical and senior nutrition.<sup>16</sup>

- **Sugar-free sweeteners** such as [polyols](#) can be easily used to replace sugars in different food products from confectionary to baking, thus allowing a significant decrease of the glycemic impact of these recipes.<sup>17,18, 19</sup> In the long term, this kind of low GI manufactured food product could positively influence insulin sensitivity and Type 2 diabetes development.

In the previously mentioned article, Merino et al. indicate that the association of a healthy diet with lower COVID-19 risk appears particularly evident among individuals living in higher socioeconomic deprivation. Even if the authors acknowledge some very well-described limitations to their study, their data provide evidence that a healthy plant-based diet is associated with lower risk and severity of COVID-19, and that improving nutrition is a major step to improve health.

In this context and facing the world epidemic of diabetes and obesity, which are important risk factors for COVID-19 and its complications, Roquette's plant-based dietary ingredients truly contribute to building a healthy diet.

### About Roquette

Roquette is a global leader in plant-based ingredients supply and a pioneer of plant proteins. In collaboration with its customers and partners, the group addresses current and future societal challenges by unlocking the potential of nature to offer the best ingredients for food, nutrition, and health markets. These ingredients respond to unique and essential needs, enable healthier lifestyles, and are critical components of life-saving medicines. At Roquette, we believe that nature has the answer to provide people with the food, nutrition, and health they need according to their lifestyle choices, their age, where they live, and what they do.

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<sup>8</sup> Guérin-Deremaux L. *et al.* The soluble fiber NUTRIOSE® induces a dose-dependent beneficial impact on satiety over time in humans. *Nutrition Research* 2011; 31: 665-672

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<sup>15</sup> Thondre P.S. *et al.* Co-ingestion of NUTRALYS® pea protein and a high-carbohydrate beverage influences the glycaemic, insulinaemic, glucose-dependent insulinotropic polypeptide (GIP) and glucagon-like peptide-1 (GLP-1) responses: preliminary results of a randomised controlled trial. *European Journal of Nutrition* 2021; 60(6):3085-3093

<sup>16</sup> Allaert *et al.* Evaluation of adherence by elderly nursing home patients to regular consumption of apple compote enriched with protein and soluble fiber. *Aging Clinical and Experimental Research* 2016; 28:189-195

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