

Short title: Editorial.

## Editorial: Balance, and the back-to-back problem

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I am often asked about my profession and, depending on who is asking, my answer ranges from biologist through animal scientist to lactation researcher. My research has been driven by the need to feed a burgeoning population and the strong belief that well cared-for food animals have an essential role to play in fulfilling that need, so I suppose I am fundamentally a food animal scientist. Some years ago I had the pleasure of meeting an eminent food scientist from the University of Helsinki. We were discussing education, and he commented that, where teaching was concerned, food scientists and animal scientists were very close, but standing back-to-back. Not communicating. We resolved to tackle this problem, and with support from the Nordic countries we applied for and obtained EU funding for an Erasmus Mundus MSc course in animal-derived foods, which we called Food of Life. The idea was simple; students would be taught across the twin disciplines of the animal and food sciences. I believe that the course was extremely successful: we attracted many hundreds of applications each year and were able to fund more than 80 students from over 40 countries around the globe. Most, if not all, have gone on to high-quality food-related careers, many (certainly not all, but that is another story) in their native countries. The point I wish to emphasize is that a full scientific understanding of complex issues such as food production, supply and use requires a broad and balanced approach across all relevant disciplines. Teachers are not alone in standing back-to-back; the same is often true, regrettably, of researchers. During my time at the Hannah Research Institute I was able to collaborate internally with excellent food chemists and dairy technologists, and disciplines such as microbiology were researched from the twin perspectives of rumen and fermented foods (and feed: the Hannah was a leader in the adoption of silage production). That focused, integrated and yet broadly diverse research approach is largely a thing of the past, at least in the UK dairy sector, so part of my reason for being delighted to join the University of Copenhagen was the continuity of animal science and food science teaching and research within the one Faculty. Imagine my disappointment, therefore, when those disciplines were later split between Sundhedsvidenskabelige (Health) and Natur- og Biovidenskabelige (Science) Faculties. Of course, there is always a need for structural organization, which is presumably why a rival Journal organizes its content into six subsections within Dairy Foods and another six within Dairy Production. The problem with this pigeonhole approach is that pigeons come in different colours, shapes and sizes but actually rather like to interact with each other. Indeed, definitions of pigeonhole include (noun) *“a specific, **often oversimplified** category”* and (verb, from the Cambridge Dictionary) *“to put someone or something into a group or type, **often unfairly**”*. Hardly surprising then that the twelve subsections just mentioned are actually only eleven (one is shared between the two sections) and, within Dairy Production, half of the subcategories

carry caveats that attempt to clarify overlap. At the Journal of Dairy Research, we believe that the dairy foods chain is a feed-to-food continuum and we organise each issue to reflect that, without strict categorization. Sometimes it is rather hard to decide exactly where a paper should fit, but that simply serves to reinforce the philosophy. We recognize that endocrinologists and chemists (for instance) have very different expertises and immediate objectives, but there will be complementarity in some respects and, above all, we would expect them to share a common ultimate goal, one of creating benefit for lactating animals and/or consumers. Being brutally honest and taking into account the number of scientific Journals within the Animal Science and Zoology (far fewer) and Food Science (far more) evaluation categories, we would benefit (in terms of rankings) from a total focus on our production research. The justification might be that there are other excellent Journals publishing high quality dairy foods research. However, their backs are turned on animal scientists, so they cannot see the entire picture. Please be reassured that it is our firm intent to continue to offer the cross-disciplinary continuum, and to do so in as balanced a way as possible. So, let us examine just how balanced the Journal of Dairy Research is. The Figure shows a breakdown of submissions over the last 5 years by topic area, with papers that went on to be published shown in green and rejected papers in red. Overall, the production sciences (feed, animal, mammary gland) predominate to some limited extent, but there is a fair degree of balance. One might be excused for thinking that dairy foods submissions have a lesser chance of succeeding, but this mainly reflects our desire to see "technique" papers published in the shorter Research Communication format, something that authors still resist (Why? Please tell us!) We can also analyse part of our researcher community against the same topics (shown in blue in the Figure), and once again the balance is slightly in favour of production (this is our Peer Review Pool, as we do not have data for community members who are not in that pool). Are there specific areas where it would be good to see more content? Unequivocally yes: the food and consumer end of the dairy foods chain is under-represented, suggesting that dairy researchers (in general) and consumer-oriented scientists (including human nutritionists) are still back-to-back. Correcting that is a task for the future, but for now the bottom line is simple: we strive to ensure that animal scientists and food scientists can face each other, interact and communicate. Whether we succeed is up to you, the researchers, so please ask yourself this question; do I regularly scan across the whole content of the Journal, or do I cherry-pick only those papers closest to my immediate interest? If it is the latter, could I be missing something important!

### **Figure legend**

Infographic to show breakdown of papers submitted to Journal of Dairy Research between 2015 and 2020 by topic area. Papers that went on to be published are in green, rejected papers are in red. The blue boxes show the same breakdown for researchers who have joined the Journal's Peer Review Pool.

