

Short CV for Ole G. Mouritsen



Education: MSc in physics and chemistry (Aarhus University, 1976), PhD (Aarhus University 1980), DSc (Aarhus University, 1984).

Positions and affiliations: Junior and senior researcher at Aarhus University (1976-1985). Minister appointed research professor at The Technical University of Denmark (1985-1990). Appointed chair in physical chemistry at The Technical University of Denmark (1990-2001). Associate fellow at the Canadian Institute for Advanced Research (1991-2000). Adjoint professor at Aalto University (1998-). Appointed chair in theoretical biophysics at The University of Southern Denmark (2001-2017). Director of the Danish Basic Research Foundation's Center of Excellence *MEMPHYS – Center for Membrane Biophysics* (2001-2012). Director of the Nordea-foundation's national research and communication center *Taste for Life* (2014-2021). Appointed full professor in gastrophysics and culinary food innovation at the University of Copenhagen (2017-21; emeritus from 2021).

Research areas: Statistical physics, physical chemistry, interface and colloid chemistry, lipid and membrane biophysics, drug delivery, gastrophysics, taste and mouthfeel, macroalgae, cephalopods, vegetables, roe.

Most important scientific contributions: 1) Formulation of a quantitative, mechanistic model for lipid-protein interactions in membranes (*the mattress model*); 2) proposal of and characterization of *the liquid-ordered phase* in membranes and its key importance for understanding the effect of sterols on plasma membranes; 3) Quantitative description of lipid domains in membranes; 4) proposal, design, and construction of special liposomes (*LiPlasomes*) for drug delivery in cancer therapy using an endogenous, enzymatically controlled delivery mechanism; 5) Theoretical description of the glutamate-nucleotide synergy behind the molecular mechanism of the umami receptor.

Elected member of: The Academy of Technical Sciences (1991-2019), The Royal Danish Academy of Science and Letters (1994), The Danish Natural Science Academy (2000), The Danish Gastronomical Academy (2007, president from 2015), Sigma Xi (2014), Gastronomische Akademie Deutschlands (2019).

Awards and prizes: Aarhus University Gold Medal in Chemistry (1975), A/S De Danske Spritfabrikker's Centennial Anniversary Award (1981), Kirstine Meyer født Bjerrums Mindelegat (1984), Villum Kann Rasmussens Årlegat til Teknisk Forskning (1990), NKT Research Prize (1998), Hasselblad-foundation Research Award (1998), National Danish Research Communication Prize (2007), University of Southern Denmark Research Communication Prize (2007), Royal Society of Chemistry Bourke Award and Silver Medal (2008), Gourmand Best in the World Award (2009, 2011, 2015, books nominated in four categories), European Lipid Science Award (2011), Knighted to the Order Dannebrogordenen (2012), Food+Media Prize for Academic Food Communication (2013), Chevalier de Cordon Bleu du Grand Esprit (2014), Japanese Cuisine Goodwill Ambassador appointment by The Japanese Ministry of Agriculture, Forestry, and Fisheries (2016), DuPont Nutrition & Health Science Medal for Excellence in Food Science (2016), Commander of the Order of the Rising Sun, Gold Rays With Neck Ribbon, *Kyokujitsu chujusho* 旭日中綬 (2017).

Publications: Published about 400 scientific papers and reports within physics, chemistry, biophysics, biochemistry, drug delivery, materials science, food science, and gastrophysics. Editor of five books on molecular biophysics. Co-inventor on four patents within liposomal drug delivery. Author of two scientific monographs in computational physics and membrane biophysics [*Computer Studies of Phase Transitions and Critical Phenomena* (1984); *Life-As a Matter of Fat* (2005, 2016)]. Published several popular science books on food and taste in Danish [*Sushi: Videnskab, lidenskab og sundhed*; *Tang: Grøntsager fra havet*; *Umami: Gourmetaben og den femte smag*; *Fornemmelse for smag*; *Smagen af jul*; *Tsukemono-sprøde grøntsager på japansk*; *Blæksprutterne kommer-spis dem!*; *Grønt med umami og velsmag*, several of them also been translated and published in English, German, French, Japanese, Chinese, and Korean. [*Sushi: Food for the Eye, the Body & the Soul* (2009); *Seaweeds: Edible, Available & Sustainable* (2013); *Umami: Unlocking the Secrets of the Fifth Taste* (2014); *Mouthfeel: How Texture Makes Taste* (2017); *Octopuses, squid, and cuttlefish: Seafood for Today and for the Future* (2021); *Tsukemono: Decoding the Art and Science of Japanese Pickling* (2021)].

Citations: (June 2023) About 16.000 with an h-index of 68 (Web of Science).