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Lipids in Fish

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Message from the Guest Editor

Fish are considered as the most important source of longchain polyunsaturated fatty acids of the omega-3 family (omega-3 LC-PUFA) in the human diet. The needs of the different fishes in LC-PUFA are not the same. Some species efficiently synthesize eicosapentaenoic (20:5n-3, EPA) and docosahexaenoic (22:6n-3, DHA) acids from their precursors, while others obtain these PUFAs mainly from food. Anyway, omega-3 LC-PUFAs play an important role in the metabolism of all fish species. Very often omega-6 LC-PUFAs, which are no less important in the metabolism of some fish, are unfairly ignored. A shortage of EPA, DHA and arachidonic (20:4n-6, ARA) acids in fish food leads to the appearance of various pathologies in fish: myocarditis, obesity of the liver and intestines, fin erosion, gill bleeding, curvature of the spine, decreased reproductive potential, etc. Species-specific features of lipid metabolism in fish, e.g., lipid synthesis in different tissues, intestinal lipid absorption and their assimilation, oxylipins synthesis and their role, the relationship of fish lipid composition with their life strategy, etc., are of particular interest.













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Message from the Editor-in-Chief

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