Global plastics production rose to around 300 million tonnes in 2013. The littered plastic materials are continuously fragmenting into microscale particles called microplastics. So far, most of the studies on microplastics have focused on their accumulation in environmental compartments. Due to the paucity of information, however, these tiny particles are believed to be inert, posing no threat to human health. Dr Karami will begin with an introduction to plastics and microplastics, and their impact on the environment and humans. He will then present some very recent studies on the surprising effects of microplastic fragments, alone or in combination with other contaminants, on molecular, biochemical, and histopathological biomarkers in some fish species. Thus, this seminar will provide a comprehensive insight into the potential adverse impacts of plastics on human health.

**Biography:** Dr. Ali Karami is the Founder and Coordinator of Aquatic Toxicology Laboratory and Senior Lecturer at Universiti Putra Malaysia. To date he has received several competitive research grants, patented four inventions and won six medals in national and international competitions. His broad and interdisciplinary research interests include aquaculture biotechnology and aquatic toxicology of pesticides and organic oil-derived compounds. Dr. Karami’s recent studies have involved predicting the negative impacts of tiny plastic particles (microplastics) on human health through studying a wide range of biomarker responses in fish. Also, his ongoing research includes developing standardized protocols to determine microplastic loads in aquatic organisms and seafood products. He is currently leading several international studies on this subject.