The term scoliosis was first used by Galen (A.D. 131-201). The most common form is Adolescent Idiopathic Scoliosis (AIS) which typically affects an otherwise healthy girl in the early stage of pubertal growth. The incidence of AIS worldwide is 1-4% and the prevalence in Hong Kong is 3.6% in girls and 1.3% in boys. Scoliosis deformity when not treated or improperly treated may progress and deteriorate leading to significant cosmetic problems and functional disabilities and cardiopulmonary compromises in the severe cases.

Considerable advances have been made in the treatment of scoliosis in the past few decades as a result of improved knowledge of the 3D deformity of scoliosis, the availability of new non-operative and surgical treatments and the parallel advances in related supportive techniques. Despite all these advances, the etiology and etiopathogenetic mechanisms of AIS are still unclear. Without being able to prevent and treat the primary cause yet, the current treatments are primarily targeting at controlling further progression of the deformity.

This lecture will present a general overview of the clinical presentation and treatment and briefly touch on some of the latest advances in AIS epidemiology, key concepts and hypotheses arising from some of the current multidisciplinary research related to the etiopathogenesis of AIS.