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It was documented in the report of the 1997 survey of the Ministry of Health and Welfare that about 7.0 million people have diabetes in Japan, including 10% of > 40-year-olds. Of these individuals, >90% have type 2 diabetes, and recently there has been a dramatic increase in type 2 diabetes in Japan. This may be related both to environmental changes, such as the Japanese lifestyle (high-calorie diet and/or insufficient exercise), and to the presence of diabetes-susceptible gene alleles in this population. Recently, diabetes-related investigations have shown significant development and accumulation. These include studies of: 1) the insulin signaling pathway (decreased function of insulin receptor substrate-2 in skeletal muscle and central nervous system); 2) the relationship between diabetes and the adipocytokines (adiponectin, tumor necrosis factor α , leptin, resistin) secreted by adipose tissue (of these adipocytokines, adiponectin and leptin are known to have insulin-sensitizing ability, and decreased adiponectin expression and secretion have been positively correlated with decreases in insulin sensitivity); and 3) new findings concerning the mechanisms underlying diabetic complications. In this symposium at the Annual Meeting of the Pharmaceutical Society of Japan, the above-mentioned themes will be presented and discussed.