

THE FUTURE OF GROWTH-PROMOTING THERAPY

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Growth hormone (GH) has been in use for 50 years in children with short stature. Recent developments suggest that our traditional approaches to growth-promoting therapy will be challenged in the following areas:

- 1) **Diagnostic**: The diagnosis of GH deficiency has always been problematic, largely due to limitations inherent in GH stimulation tests and related biochemical measures. The development of new tools for diagnosis of genetic etiologies of hormonal deficiencies and insensitivity, as well as the growing availability of such methodologies, will greatly strengthen existing diagnostic strategies
- 2) **Therapeutic**: Long-acting GH preparations are already in clinical trials. IGF-I therapy is approved for treatment of IGF deficiency. Novel approaches to select skeletal dysplasias show promise and will potentially expand our therapeutic armamentarium
- 3) **Monitoring**: Traditional weight-based dosing of GH will be supplemented by IGF-based and auxology-based strategies, allowing greater individualization of therapy
- 4) **Safety**: Growth-promoting therapies will continue to require careful monitoring of safety. Recent consensus workshops have advocated life-time surveillance programs
- 5) **Ethics**: Questions will continue to be raised concerning ethical issues related to growth-promoting therapy in children. The availability of new tools for diagnosis and monitoring will address some, but not all, of these issues.