

Dialogue on Science

*Personalised Medicine Applied to Sport:
potential impact on individual development*

Engelberg, September 2011



INTERNATIONAL CHARTER OF PHYSICAL EDUCATION AND SPORT

Paris, 1978

“Every human being has a fundamental right of access to physical education and sport, which are essential for the full development of his personality.”

UN Office on Sport for Development and Peace



Sudden Death

Personalised Medicine



490 BC



Sudden Death

abnormalities of the heart and blood vessels



no symptoms



1 to 2 in 200.000 athletes / annually → football and basketball

phenotype



500 DNA markers

Genes

IL6

ACE

DI01

NOS3

ACTN3

GenBank

accession number M86407.1



phenotype



athletic performance
health-related fitness

TOPIC:

Science

TUESDAY, MAR 8, 2011 17:12 ET

Companies claim genetic tests show kids' sports abilities

Genetic test marketers ask \$200 for a kit they say reveals a child's athletic aptitude, scientists are skeptical

“6.2. Scientific research, whose social implications in this sphere should not be overlooked, must be oriented in such a way that it does not allow of improper applications to physical education and sport.”

UN International charter of physical education and sport

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China pump billions into producing golden generation of Olympians



“Nowadays, competition in the world is about who has the most talent. We can give Chinese children an effective, scientific plan at an early age.”

Zhao Mingyou

Chongqing Children's Palace



"We also test listening ability so that can tell us if the child might be talented at music."

Dr. Huang Xinhua

News Sports Gossip Entertainment Events

Baseball Football Basketball Hockey College I-Team

NYDN Home → Collections → **China**

In China, Olympic stars are rising fast at state-run sports academies



"My life then was just training. We trained at dawn, in the morning, in the afternoon, even in the evening. We didn't really do any school work."

Zhao Yonghua

(31 years –old, retired due to several injuries and depression)

