

## Actionable Intelligence- Implications on Athlete Development

### The Training Problems

#### Part I Neurological Considerations: Structure and Function

- The Nervous System
- Peripheral
- Central
- Motor Cortex
- CNS Fatigue
- PNS Fatigue

#### Part II Neuromuscular Considerations

- Training Intensity
- Motor Unit Recruitment
- Motor Unit Rate Coding
- Grading the Force
- Synchronization
- Charlie Francis Motor Unit Involvement
- General Organism Strength

#### Part III Physiological Considerations

- Adaptation
- Non-Linear/Phasic Process (Pavlov)
- Bioenergetic Machinery
- Bioenergetics
- Anaerobic-Alactic
- Anaerobic-Lactic
- Aerobic/Oxidative
- Anaerobic Threshold
- Muscle Physiology
- Mitochondria

#### Part IV Training Implications

- Dynamic Correspondence
- Architectural Structure
- General Physical Preparation
- Special Physical Preparation
- Technical-Tactical Preparation
- Psychological Preparation
- CNS Intensive Efforts
- General Recovery Periods
- Quantifying CNS Stress
- Speed Intensity Zones
- Strength Intensity Zones
- Bioenergetic Intensity Zones
- Bioenergetic Training Parameters
- Intensive Adaptations
- Extensive Adaptations

#### Part V Programming and Organization

- Criteria
- Workload Compatibility- Issurin
- Workload Non-Compatibility- Issurin
- Organizational Strategies
- Model Examples
- Linear Factors
- Complex-Parallel Factors
- Block Factors
- Suggested Model for Multi-Targeted Disciplines

- Elements
- Annual Plan

The Solutions

- Program Management