Smarter, Faster, Safer:
Cognitive Enhancement Training to improve Decision-Making
Under Pressure

Jocelyn Faubert, CSO CogniSens Inc.
CogniSens is the commercial platform for technologies from the lab
Development of multi-disciplinary Human Performance technologies
Commercialization platform for new technologies and applications
Partnership facilitates Key Opinion Leader validation
Complex dynamic environment
NeuroTracker: simple training
Learning

Geometrical Mean Average for Professionnals
High-level Amateur Athletes
& Non-Athletes (university students)

![Graph showing speed thresholds vs. number of sessions for different groups](image)

- Professional athletes (N=102): $R^2 = 0.97$
- Elite-amateurs (N=173): $R^2 = 0.98$
- Non-athletes, university (N=33): $R^2 = 0.97$
Neuroplasticity Remains

Tracking Improvements

- 17 cm/s
- 24 cm/s
- 25 cm/s
- 35 cm/s

Untrained

- 65+
- 23

Trained

- 65+
- 23

Social Impact

Driving Improvement

Legault & Faubert, 2012; Legault, Troje & Faubert, 2012

NeuroTracker Active Aging

Legault, Allard & Faubert, 2013

Faubert et al., 2014
Healthy university students

• 2 groups:
  1. NT group (trained; n=10)
  2. CON group (untrained; n=10)

• Neuropsychological tests
  1. Attention, working memory, information processing speed
  2. Functional brain scan (qEEG)

• 10 training sessions; 2x per week over 5 weeks
Thank you!

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