

SYNTHETIC FORM FOR A BOARD CERTIFIED TRAINING UNIT

UNIT NAME: Department of Neurorehabilitation Sciences

ADDRESS: Istituto Auxologico Italiano, IRCCS, via Giuseppe Mercalli, 30 20122 Milano, Italy

NAME OF THE UNIT RESPONSIBLE: Prof. Luigi Tesio, MD

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- Main clinical activities of the unit:

(state the main areas of care depending on clinical workload and interests)

Neurorehabilitation. Motor, cognitive, swallowing, and continence rehabilitation in patients with neurological impairments, in both inpatient and outpatient settings.

- Specific research interests of the unit:

(give the key words for each theme)

Motor control; balance; locomotion; psychometrics (Rasch analysis); pain; research methodology

- List five publications from the last five years which most represent the unit's research programme:

1. [Anterior cruciate ligament reconstruction is associated with increased corticospinal excitability and rate of force development.](#)
Scarano S, Caronni A, Menon A, Rota V, Amadei M, Perucca L, Brevi E, Maione A, Ferrua P, Tesio L, Randelli PS.
BMC Sports Sci Med Rehabil. 2026 Feb 9;18(1):123. doi: 10.1186/s13102-026-01577-0.PMID: 41656237
2. [Plantar flexors are the main engine of walking in healthy adults.](#)
Rota V, Caronni A, Scarano S, Amadei M, Tesio L.
Front Sports Act Living. 2025 Jul 8;7:1595065. doi: 10.3389/fspor.2025.1595065. eCollection 2025.PMID: 40697531
3. [Visuomotor paired associative stimulation enhances corticospinal excitability in post-stroke patients with upper-limb hemiparesis.](#)
Picardi M, Guidali G, Caronni A, Rota V, Corbo M, Bolognini N.
Sci Rep. 2025 May 1;15(1):15313. doi: 10.1038/s41598-025-98595-8.PMID: 40312465
4. [Interpreting results from Rasch analysis 2. Advanced model applications and the data-model fit assessment.](#)
Tesio L, Caronni A, Simone A, Kumbhare D, Scarano S. Disabil Rehabil. 2024 Feb;46(3):604-617. doi: 10.1080/09638288.2023.2169772. Epub 2023 Feb 6.PMID: 36744832
5. [Balance impairment in myotonic dystrophy type 1: Dynamic posturography suggests the coexistence of a proprioceptive and vestibular deficit.](#)
Scarano S, Sansone VA, Ferrari Aggradi CR, Carraro E, Tesio L, Amadei M, Rota V, Zanolini A, Caronni A.
Front Hum Neurosci. 2022 Jul 28;16:925299. doi: 10.3389/fnhum.2022.925299. eCollection 2022.PMID: 35967003

- Please identify if necessary the conditions and means of exchange for trainee specialist (the number permissible, the person to contact, etc.):

Trainee specialists will be assigned to senior English-speaking specialists and included in the Department's various clinical and scientific activities.

Authorisation to publish over Internet YES ☐

NO ☐

Signature:

