

FUNDING APPLICATION

Section C – CV Template

C.1 CURRICULUM VITAE

Personal information

Name, Surname:	Adrian Barbilian		
Date of birth:		Sex:	Male
Nationality:	Romanian		
Researcher unique identifier(s) (ORCID, Researcher ID etc.):	ORCID: 0000-0001-9095-9124 Researcher ID: U-1700-027C-6096		
URL for personal website (if case):	Personal Website		

Education

Year	Faculty/department - University/institution - Country
2007-2008	Postgraduate course of Complementary Studies in Health Services Management National School of Public Health Management and Improvement in the Sanitary Field Bucharest
1993-1997	University of Medicine, Oradea Phd tsesis "Contributions to the study of anatomical-bioclinical correlations under the conditions of orthopedic-traumatic surgical treatment in the hip region"
1987-1992	General Medicine Faculty of General Medicine of the Institute of Medicine and Pharmacy, Bucharest, Romania

Positions - current and previous

(Academic sector/research institutes/industrial sector/public sector/other)

Year	Job title – Employer - Country
2022-prezent	Member of Academy of Medical Sciences;
2019-2022	Senior researcher of Academy of Medical Sciences;
2009-prezent	Professor, University of Medicine and Farmacy Carol Davila, Bucharest Romania
2002-2008	Assistant Professor, University of Medicine and Farmacy Carol Davila, Bucharest Romania
1998-2002	Lecturer, University of Medicine and Farmacy Carol Davila, Bucharest Romania
1993-1995	University assistant, University Titu Maiorescu, Faculty de Medicine, Bucharest Romania

Career breaks (if case)

Year	Reason
-----	not applied

Project management experience

(Academic sector/research institutes/industrial sector/public sector/other. Please list the most relevant.)

Year	Project title - Role – Funder – Budget – link to project webpage
2023-2027	“ ARMIN , Arm neuroprosthesis equipped with artificial skin and sensorial feedback, EEA-RO-NO-2018-0390, partner leader, 1500000 EURO, link to project webpage
2013-2017,	“ Informatic system for monitoring and personalized assistance of patients with amputated upper limbs ” - ARTHAND, Project director, PN-II Contract (national project), 225.000 RON, link to project webpage
2007-2010	“ Smart locomotor prostheses – INTELPROT”, partner leader, PNCDI2 project, 175002 RON, link to project webpage
2007-2008	Containerized Minimally Invasive Surgery Kits for OItraumatism with Main Osteoarticular Component , project director, Defense Minister, 200000 lei, link to the project webpage
2006-2008	Increasing the International Visibility of Romanian Medical Research in the Field of Orthopedic and Maxillofacial Reconstructive Surgery through Controlled Osteosynthesis. OSTEOCONTROL , project director, 100000 lei, CEEX MOD3, link to the project webpage
2006-2008	Therapeutic Studies and Innovative Interventions through Diaphyseal-Epiphyseal Transosseous Osteosynthesis and Arthrodiastis for Limb Lengthening through Controlled, External and Internal Automatic Distractors , project director, CEEX Viasan, 80000 lei, link to the project webpage
2006-2008	Selfcompactor Distractor in War Surgery of Open Fractures , project director, CEEX Viasan, 80000 lei, link to the project webpage
2002-2003	Modular Materials for Reconstruction in Times of Catastrophe and War – Endoprosthetics of the Radiocarpal Joint with Deficient Bone , project director, ORIZONT, 80000 lei, link to the project webpage
2014-2015	Multidisciplinary Research Center for the Multifunctional Approach to Abdominal and Myoosteoarticular Tumor Pathology of the Pelvis and Pelvic Limbs / CERPATUM , project director, POSCCE, 20000000 lei, link to the project webpage
2014-2015	Partnership for a Successful Medical Career in the Specialties Involved in Surgical Pathology of the Limbs , project director, POSDRU/161/2.1/G/135806, 283.238 lei, link to the project webpage
2015-2017	Counseling, Professional Orientation and Elements of Practice in Pediatric Orthopedics and Traumatology , partner leader, POSDRU /161/2.1/G139 364, 213000 lei, link to the project webpage
2008-2010	Development of the Multidisciplinary Research Base in the Field of Medical Nanorobotics in Romania , project director, Capacitati-Modul2, 190000 lei, link to the project webpage
2006-2008	Promotion of Scientific Competences in Romania, for International Cooperation in Mini Invasive Bone Reconstruction Surgery through the Dynamically Stabilized Elastic Osteosynthesis Method , project director, 100000 lei, CEEX MOD3, link to the project webpage
2005-2007	Creation of an Intercentric Network for the Development and Monitoring of the Use of Mini Invasive Surgery Medical Techniques in Orthopedics-Traumatology ; project director, CEEX Viasan, 90000 lei, link to the project webpage
2002-2004	Research for the Development of New Bicompatible and Non-Resorbable Membrane Systems Used in Directed Bone Regeneration and Osteoligamentous Transplants ; project director, CEEX Viasan, 90000 lei, link to the project webpage
2001-2002	Research on the Modification of the Properties of Ligamentous Allografts Preserved by Cryogenic Methods ; CEEX Viasan, 70000 lei, link to the project webpage

2001-2002	Technological Demonstrator for Real Time 3d Realization of Non-standardized Prosthetic Elements according to Clinical Case Studies , Specific to Fighters; CEEX Viasan, 95000 lei, link to the project webpage
2001-2002	Mechanical-Hydraulic Mission Support Equipment for Amplifying the Motor Capabilities of the Future Soldier ; CEEX Viasan, 65000 lei, link to the project webpage
2001-2002	Non-standardized 3d Prosthetic Elements according to Clinical Case Studies Specific to Fighters ; project director, 50000 lei, CEEX MOD3, link to the project webpage
1999-2000	Laboratory for Conformity Evaluation of Personnel Protection Equipment - Individual Eye Protection ; project director, 850000 lei, CEEX MOD3, link to the project webpage
1999-2000	Monitoring Procedures - Prevention and Treatment of Immune Stress in Polytraumatized Patients with Main Lesional Component , Limb Injury During Disaster and War - Cos 2661, project director, 140000 lei, CEEX MOD3, link to the project webpage
1999-2000	Determining the Biostructural Correlations of the Metal-Osteomuscular Tissue "Couple" with a View to Optimizing the Design of Osteosynthesis Means and Accelerating the Osteogenesis Process - PROBIOGEN ; project director, 120000 lei, CEEX MOD3, link to the project webpage
1999-2000	Multisensor System for Monitoring the Fighter's Biological Parameters in the Tactical Field , project director, 170000 lei, CEEX MOD3, link to the project webpage
1999-2000	Mixed External and Internal Apparatus Systems for the Emergency and Subsequent Treatment of Open Fractures with Bone Defect in Disaster and War Conditions ; project director, 95000 lei, CEEX MOD3, link to the project webpage
1998-1999	Soldier of the Future - Integrated Action System in the Context of Nato - Wotan Interoperability project director, 100000 lei, CEEX MOD3, link to the project webpage
1998-1999	Containerized Mini Invasive Surgery Kits For Polytraumas with Main Osteoarticular Component ; project director, 140000 lei, CEEX MOD3, link to the project webpage
1998-1999	Mobile Computerized Diagnostic Unit for the Evaluation of Bone and Muscular Trauma ; project director, 50000 lei, CEEX MOD3, link to the project webpage

Other relevant professional experiences

(e.g. institutional responsibilities, organisation of scientific meetings, membership in academic societies, review boards, advisory boards, committees and major research or innovation collaborations, other commissions of trust in public or private sector)

Year	Description - Role
2008-present	Head physician of orthopedics-traumatology clinic, UMF Carol Davila, Central Military Emergency University Hospital Dr. Carol Davila Bucharest
2000-2008	Head physician of the orthopedics-traumatology department, UMF Carol Davila, Central Military Emergency University Hospital Dr. Carol Davila Bucharest
2001-present	Member of the Romanian Society of Orthopedics - Traumatology - SOROT;
2001-present	Member of the Balkan Medical Union - UMB;
2001-present	Member of the International Society of Orthopedics-Traumatology - SICOT;
2002-present	Member of the European Society of Orthopedics - Traumatology - EFORT;
2002-present	Member of the Francophone Society of Orthopedics - Traumatology - AOLF;
2003-present	Member of the International Society of Optical Engineering – Los Angeles, USA;
2003-present	Member of the European Lasser Medical Association – EMLA;
2003-present	Member of the Romanian-Italian Society of Orthopedics-Traumatology - SOTRI;
2004-present	Member of the Lassers Society in Medicine, Biology, Genetics "Ion Agârbiceanu";
2005-present	Founding Member of the "Laser In Medicine And Biology" Society;
2005-present	Honorary Member of "The Institute for Limb Preservation" - USA;

2005-prezent	Scientific Secretary of the National Anatomy Society - Bihor Branch;
2005-prezent	Founding member of the International Association of Orthopedics and Rehabilitation in Orthopedics A.I.O.R.O.;
2005-prezent	Member of the Research Institute "T.R.U.E. SOMOS Research Foundation, USA.
2006-prezent	Member of the scientific editorial team of the Military Medicine Magazine;
2006-prezent	Member of the scientific editorial team of the medical magazine "Stethoscope".
2007-prezent	Member of the scientific board of the European Journal of Orthopedic and Traumatological Surgery E.JOST, specialized publication of the SPRINGER-VERLAG group.
1998	Award: "Military Merit" Order, 1st class
2004	Award: Honorary sign "In the service of the country" for officers
2005	Award and Diploma of Excellence Min. of Education & Research and Min. of Economy & Commerce – Mech. Fine and Mechatronics
2008	Award: Emblem of merit "In the service of the Romanian Army", 1st class
2010	Award: "Health Merit" Order - in the rank of knight

C.2 Track record of the last 10 years

1. Pogarasteanu, M., Moga, M., **Barbilian, A.**, Avram, G., Dascalu, M., Franti, E. Orban, C. (2023). *The Role of Fascial Tissue Layer in Electric Signal Transmission from the Forearm Musculature to the Cutaneous Layer as a Possibility for Increased Signal Strength in Myoelectric Forearm Exoprostheses Development*. Bioengineering (Basel, Switzerland), 10(3). 10.3390/bioengineering10030319, ISI-Q2
2. Cernat, EM; Dima, A; Popescu, C; Neagu, A; Betianu, C; Moga, M; Manolescu, LSC; **Barbilian, A**; Yee, LPP, *Anterior Intercondylar Notch Geometry in Relation to the Native Anterior Cruciate Ligament Size*, Jan 2024, Journal Of Clinical Medicine, 13 (2)
3. Blystad L.-C., Ohlckers P., Marchetti L., Franti E., Dascalu M., Ionescu O., Dobrescu D., Dobrescu L., Niculae C., Dragomir D.C., Honsvall B.L., Opris C.O., Imenes K., Ion M., Oproiu A.M., Pascalau A.-M., Moldovan C., Firtat B., Ristoiu V., Gheorghe R., **Barbilian A.**, *Bidirectional neuroprosthesis system integration*, published in Proceedings of ESTC 2020, pp. 1-7, 15-18 September 2020, USN, Norway, DOI: 10.1109/ESTC48849.2020.9229697
4. Moldovan, C.A.; Ion, M.; Dragomir, D.C.; Dinulescu, S.; Mihailescu, C.; Franti, E.; Dascalu, M.; Dobrescu, L.; Dobrescu, D.; Gheorghe, M.-I.; Blystad, L.-C.; Ohlckers, P.A.; Marchetti, L.; Imenes, K.; Hønsvall, B.K.; Ramirez-Sarabia, J.; Lascar, I.; Neagu, T.P.; Raita, S.; Costea, R.; **Barbilian, A.**; Gherghiceanu, F.; Stoica, C.; Niculae, C.; Predoi, G.; Carbutaru, V.; Ionescu, O.; Oproiu, A.M. *Remote Sensing System for Motor Nerve Impulse*. Sensors 2022, 22, 2823. <https://doi.org/10.3390/s22082823>, – ISI Q2
5. Turcu, R; Moga, M and **Barbilian, A.**, *Aspects of Cementation in Shoulder Hemiarthroplasty after Complex Fracture of the Proximal Humerus*, Revista de Chimie, Sep 2018, 69 (9), pp.2435-2437
6. P. L. Milea, M. Dascălu, E. D. Franți, **A. Barbilian**, I. C. Stoica, *Tactile Feedback Experiments for Forearm Prosthesis with Myoelectric Control*, pp. 101–114, Romanian Journal for Information Science and Technology, Volume 20, Number 2, 2017
7. Nita, D; Gurzun, M; **Barbilian, AG**, *Impact of stent diameter and length on in-stent restenosis after bare metal stent implantation*, 2017, Romanian Biotechnological Letters 22 (2) , pp.12347-12351
8. Milea, PL; **Barbilian, A**; Stoica, CI, *A new Method for Myoelectric Signal Acquisition: Preparing the Patients to Efficiently Use an Artificial Arm*, ROMJIST, 2017, 20 (2), pp.115-123
9. Moldovan, C; **Barbilian, A**; et al., *Design and fabrication of tubes-guided structure with electrical stimulation module for neural regeneration and in-vivo testing*, 2019, ROMJIST, 22 (2) , pp.135-142

10. Dontu, OG; **Barbilian, A**; et al. *Mechatronic Finger Structure with Pressure-Sensitive Conductive Layer*, ROMJIST, 2018, 21 (2) , pp.139-150

C.3 Narrative CV

Professor Adrian Barbilian MD, PhD (2010), member of Academy of Medical Sciences of Romania. Adrian Barbilian has highly specialized international training on the latest techniques in the fields of osteoarticular reconstructive surgery after limb tumours and trauma, in minimally invasive orthoplastic surgery, and in arthroscopic surgery. Professor Adrian Barbilian possesses top training on using the latest medical technology in orthopaedic investigation and diagnosis, in non-invasive surgery, as well as in exo-prosthetics, etc.

He coordinated **27 national/international projects (some of them with ground-braking thematic)** and he participated in other 14 projects as a team member. In the area of scientific research, he designed and developed new techniques in the field of orthopaedics, mainly in the use of biocompatible materials for treating bone diseases and for implants. On his initiative and under his coordination, a **new type of myoelectric prosthetic arm was designed and implemented**, in collaboration with a group of specialists from IMT and ICIA, an achievement which has received significant international appreciation. He designed and tested in clinical studies a **new surgery method for circumferential osteoneuromyoplasty method of forearm amputation**, that were presented at international conferences and in international journals. In ARMIN project he coordinated the design of a **neuroprosthesis with feedback tactile for amputees and its implantable neural interface**. He coordinated the **design, implementation and tests of the first exoskeleton structure** for soldiers from Romanian Army. In ARTHAND project he coordinated the design and implementation of an **Informatic system for personalized assistance of patients with amputated upper limbs**. He coordinate the first research romanian research in the fields of **medical nanorobotics structures** and their applications in the fields of orthopedic surgery.

His laborious work was awarded with numerous distinctions and prizes, and includes 12 books, 8 patents, 106 articles and scientific papers published in national and international professional journals or presented in international specialised conferences. His scientific results prove that he **has an adequate experience in coordination of national and international competitive research projects**.

He is a member of the most prestigious national and international societies of medicine, orthopaedics, and traumatology and in the scientific boards of several prestigious national and international journals of medicine. His professional experience show that he has the **required scientific expertise and capacity to successfully execute** in this project the tasks about mechatronic structures for rehabilitation (T2.2), mechatronic aids for amputees (T2.3), clinical studies for testing the implantable modules and mechatronic structures (T2.4), system of implantable neuronal modules integrated with external mechatronics aids (T5.1), concept and design of a Telehealth platform (T5.4), new projects (T6.2, T6.3), dissemination, communication and exploitation (T7.1, T7.2, T7.3), management and Ethics (T8.1, T8.2, T8.3), setting up and management of the Centre of Excellence (T1.1 – T1.4).

The fruitful collaboration with the experts from many Romanian and foreign institutions guarantee that he will contribute to make the Center of Excellence consortium **suitable for the successfully fulfil of the its objectives and research tasks**.

Note: For each nominated person, please present the CV (uploaded as a single document of maximum 6 pages, saved with the name of the member, A4 format, Times New Roman font, 11-point font size, 1.15 line spacing and 2 cm margins).