Curriculum vitae with track record (for researchers)

Role in the project Project manager \Box Project partner \Box

Personal information

First name, Surname:	Gary, Chinga Carrasco		
Date of birth:	24.12.1969	Sex:	Male
Nationality:	Chilean, Norwegian		
Languages	Spanish, Norwegian, English		
Researcher unique identifier(s) (ORCID, ResearcherID, etc.):	https://www.webofscience.com/wos/author/record/920840 https://orcid.org/0000-0002-6183-2017		
URL for personal website:	https://www.linkedin.com/in/garychingacarrasco/ http://www.gcsca.net/Publications.html		

Education

Year	Faculty/department - University/institution - Country
2017	Innovation management and commercialization of R&D. Course arranged by NHH Norwegian School of Economics and the Research Council of Norway, 4 sessions in Norway and 1 week in Palo Alto/Silicon Valley/Stanford Faculty Club, Stanford University.
2002	Dr ing, Dept. Chemical Eng., Norwegian Univ. of Science and Technology (NTNU), Norway
1997	Cand. Scient. (Master of Science) – "Three-dimensional reconstruction of plant cells exposed to different gravity conditions": defence date: 07.04.1997.
1995	Cand. Mag. Biology and computer science, NTNU, Norway

Positions - current and previous

Year	Job title – Employer - Country
2022-	Lead scientist – Biopolymers and Biocomposites area, (RISE PFI)
2013-2022	Lead scientist – Biocomposites area, (RISE PFI)
2008-	Senior research scientist, PFI
2004-2007	Research scientist, PFI
2002-2003	Post doc/Research scientist, PFI/NTNU
1995-1998	Project engagement: Plantebiosenteret, NTNU, Department of Botany, NTNU, Department of Physics, NTNU

Project management experience during the last 10 years

Year	Project owner - Project - Role - Funder
2023-2026	REDYSIGN , WP leader. Resource-efficient processes for production and circularization of innovative RECYclable-by-DeSIGN fresh meat smart packaging from wood. Research & Innovation Action Project funded by the HORIZON-JU-CBE-2022. ~6 million Euros.
2022-2025	<i>bioMAT4EYE,</i> WP leader and coordinator for the Norwegian contribution. Neoteric Biomaterials for hIPSCs Monitorized Differentiation to RGCs: Creation, Microfabrication & Microfluidics. European M-eranet. 1.5 million Euros.
2022-2025	WoBiCo , WP leader and coordinator at RISE PFI. From Wood to Sustainable Biocomposites. Knowledge-building Project funded by the Research Council of Norway. ~3.0 million Euros.
2021-2022	<i>Tuni3D</i> , Coordinator. 3D printing of a tailor-made system based on biocomposite tunicate fibres materials to be evaluated for an industrial application. Private funding. 50000 Euros
2021-2022	BioComp , Coordinator at RISE PFI. New biocomposite systems. Cooperation with 3 major Norwegian industrial partners. NFR BIA – Innovation-driven project. Total budget: approx. 1.3 million Euros
2020-2022	NEPP , Coordinator at RISE PFI. A new generation beverage carton. NFR BIA – Innovation- driven project. Total budget: approx. 1.5 million Euros
2020-2022	OxyPol, Coordinator at RISE PFI. Oxygenated bioPolymers for biomedical applications. NFR BIA – Innovation-driven project. Total budget: approx. 2.4 million Euros
2018-2021	ALLOC , Coordinator at RISE PFI. Cooperation with 4 major industrial partners and 2 R&D partners in Norway and Finland. NFR BIA – Innovation-driven project. Total budget: approx. 3.7 million Euros
2018-2021	SPAREC , WP leader and coordinator for the Norwegian contribution. Sustainable Processing of Agrofood Residues to Elicitors and Chemicals. Responsible for development of 3D printing technology of porous structures with controlled release. European SUSFOOD funding. Total project budget: 1.8 M Euros
2018-2019	<i>Medin,</i> Coordinator: New functionalized medical devices for surgical interventions in the pelvic cavity. European MANUNET funding. Total project budget: 0.7 million Euros.
2017-2019	ValBio-3D , Initiator and Coordinator for the Norwegian contribution. Responsible for development of 3D printing technology. Cooperation with 8 partners from Europe and South-America. European ERANET-LAC funding. Total project budget: 1.1 million Euros
2015-2018	<i>FiberComp</i> , Coordinator. Development of biocomposites for the construction, infrastructure and automotive industry in Norway. NFR BIA – Innovation-driven project. Total budget: approx. 1.7 million Euros.
2012-2016	NanoHeal , Coordinator. Bio-compatible cellulose nanostructures for advanced wound healing applications. Researcher project grant. NFR Nano2021 program. Budget 1.0 million Euros, 6 partners from 3 countries within nanomedicine, microbiology and nanocellulose.

Supervision of students

Since 2002 I have contributed to the work of several national and international MSc/Post docs/PhD candidates. This is shown by my collaborative scientific publications. Recently, I am/have been the official co-supervisor of the following PhD candidates and MSc studies;

(Total number of students the last 10 years)

Master's	Ph.D.	University/institution - Country
students	students	
4	4	NTNU, Norway
1		Ecole Nationale Supérieure de Chimie, de Biologie et de Physique. France
	1	Vigo University - Department of Chemical Engineering, Spain
	1	Universidad de la Frontera (UFRO), Chile
1		ETH, Zurich, Biomedical Engineering and Molecular Bioengineering, Switzerland

Other relevant professional experiences

Year	Description - Role
2019-	Management Committee - COST Action CA18125, Advanced Engineering and Research of aeroGels for Environment and Life Sciences
2018-	Management Committee substitute of COST Action CA17128 - Establishment of a Pan
2019	European Network on the Sustainable Valorisation of Lignin
2015-	Norwegian representative in the management committee (MC) of the COST action FP1405
2017	Active and intelligent fibre-based packaging - innovation and market introduction (ActInPak).
2014-	Norwegian representative in the management committee (MC) of the COST action FP1105.
2016	The scope of the actions covers the understanding of wood cell wall structure, new material
	innovation and intelligent bio-based systems
2014	Appointed responsible for establishing the Biocomposite area at RISE PFI. During this period I
	have consolidated the group, created new projects, established the 3D printing lab and
	stablished a considerable network of cooperating partners.
2012-	Invited reviewer for Research Councils in Europe, Asia and the Americas
	Reviewer for e.g.: Carbohydrate polymers, ACS Applied Bio materials, Acta Biomaterialia,
	Applied Materials and Interfaces, Biomacromolecules, ACS sust. Chem. & Eng.
2017-	Member of the TEKNA BIOTEK working group, Trondheim, Norway
2020-	Member of the Editorial board of Journal of Bioresources and Bioproducts (Elsevier,
	CiteScore 14.6)
2021-	Editorial board – Associate editor, Bioengineering journal (MDPI)
2022-	Editor-in-Chief, Section - Nanotechnology Applications in Bioengineering, Bioengineering journal (MDPI, IF 5)

Track record

Ten relevant publications are listed below. The total number of publications during the career: I have edited 2 books and published 8 critical reviews, 130+ peer reviewed publications, 120+ conference contributions and invited talks, 8 book chapters. H-index 45 (Google Scholar).

- Chinga-Carrasco G.*, Pasquier E., Solberg A., Leirset I., Stevanic JS., Rosendahl J., Håkansson J., Carboxylated nanocellulose for wound healing applications – Increase of washing efficiency after chemical pre-treatment and stability of homogenized gels over 10 months. *Carbohydrate Polymers* 2023, 314, 120923. https://doi.org/10.1016/j.carbpol.2023.120923
- Rosendahl J, Svanström A, Berglin M, Petronis S, Bogestål Y, Stenlund P, Standoft S, Ståhlberg A, Landberg G, Chinga-Carrasco G*, and Håkansson J. 3D Printed Nanocellulose Scaffolds as a Cancer Cell Culture Model System. Bioengineering 2021, 8(7), 97. DOI: 10.3390/bioengineering8070097
- Knutsen, M., Agrenius, K., Ugland, H., Petronis, S., Haglerod, C., Håkansson, J. and Chinga-Carrasco, G.*. Oxygenated Nanocellulose—A Material Platform for Antibacterial Wound Dressing Devices. ACS Appl. Bio Mater. 2021, 4, 10, 7554–7562
- 4. Chiulan I, Heggset EB, Voicu SI, **Chinga-Carrasco G***. Photopolymerization of Bio-Based Polymers in a Biomedical Engineering Perspective. *Biomacromolecules*, 2021, 22, 5, 1795–1814.
- Chinga-Carrasco G*, Ehman NV, Filgueira D, Johansson J, Vallejos ME, Felissia FE, Håkansson J and Area MC. Bagasse – A major agro-industrial residue as potential resource for nanocellulose inks for 3D printing of wound dressing devices. Additive manufacturing, 2019, 28, 267. <u>https://doi.org/10.1016/j.addma.2019.05.014</u>
- Jack AA, Nordli HR, Powell LC, Farnell DJJ, Pukstad B, Rye PD, Thomas DW, Chinga-Carrasco G* and Hill KE*. Cellulose Nanofibril Formulations Incorporating a Low-Molecular-Weight Alginate Oligosaccharide Modify Bacterial Biofilm Development. *Biomacromolecules* 2019, 20(8), 2953-2961.
- Nordli, H., Pukstad, B., Chinga-Carrasco, G.* and Rokstad, A.M.* (2019). Ultrapure Wood Nanocellulose— Assessments of Coagulation and Initial Inflammation Potential. ACS Applied Bio Materials, 2, 3, 1107–1118. DOI: 10.1021/acsabm.8b00711.
- Chinga-Carrasco G*. Potential and Limitations of Nanocelluloses as Components in Biocomposite Inks for Three-Dimensional Bioprinting and for Biomedical Devices. *Biomacromolecules* 2018, 19, 3, 701–711. <u>https://doi.org/10.1021/acs.biomac.8b00053</u>
- Chinga-Carrasco G*, Ehman NV, Pettersson J, Vallejos ME, Brodin MW, Felissia FE, Håkansson J, Area, MC. Pulping and pretreatment affect the characteristics of bagasse inks for 3D printing. ACS Sustainable Chem. Eng., 2018, 6 (3), pp 4068–4075. https://doi.org/10.1021/acssuschemeng.7b04440
- Nordli HR, Chinga-Carrasco G, Rokstad AM, Pukstad B. (2016) Producing Ultrapure Wood Cellulose Nanofibrils and Evaluating the Cytotoxicity Using Human Skin Cells. *Carbohydrate polymers* 150: 65–73. <u>https://doi.org/10.1016/j.carbpol.2016.04.094</u>

Recognitions/Awards:

<u>World's Top 2% Scientists</u>: According to the Stanford University lists (SCOPUS, Elsevier 2020-2023), dr. Chinga Carrasco is among the World's Top 2% Scientists for the fourth consecutive year, in the updated Science-wide author databases of standardized citation indicators.

<u>TAPPI Nanotechnology 2021</u>: International TAPPI Nanotechnology Division Mid-Career Award for research contributions related to the nanotechnology of renewable materials and contributions to the technical community. (TAPPI is a registered not-for-profit, international Non-Governmental Organization of about 14,000 member engineers, scientists, managers, academics and others involved in the areas of pulp, and paper).

<u>Treforedlingsprisen 2018</u>: One of two recipients. Award from the Norwegian wood processing association and recognition for nanocellulose research in Norway

Other outputs of relevance (e.g. datasets, software): Developed and programmed various ImageJ plugins (Java) for image analysis. Publicly available at ImageJ site and gcsca.net. **Patent applications(s):** Three patent applications filed.