

<b>Name</b> Participants of WG3	<b>Vera Marisa Costa</b>
Affiliation	REQUIMTE, Toxicology Laboratory, Faculty of Pharmacy University of Porto
Scientific expertise, up to 5 key words	Cardio-oncology; Chemobrain; Toxicology; Oxidative stress; Catecholamines and drugs of abuse
Motivation for participation in WG3	The translational potential of science has been always a goal in my scientific career. I have been so fortunate to work with clinicians and although I work on basic science, I observed close hand what a scientific breakthrough could bring to patients. My focus mainly on the heart (and most recently on chemobrain), has brought my attention on the tremendous impact that side effects of drugs, even lifesaving ones, like anticancer drugs can have on the life expectancy of patients. My overall goal is to find early biomarkers of damage so that pharmacological weapons can bring forward curative measures, when it is still possible. The brain and the heart share key aspects, namely the susceptibility towards oxidative stress and inflammation. Thus, I will be able to contribute with different ideas and perspectives also.
Short narrative biosketch, including scientific background/ education/major achievements etc.	<p>PhD on Toxicology in 2009 and with more than 70 international papers published and h-index of 25. Main fields are Onco-Cardiology, Chemobrain and Toxin Toxicity.</p> <p>Presently, a researcher and lecturer at University of Porto.</p> <p>I am an Associated Editor on two international peer-reviewed scientific journals on Pharmaceutical Sciences and Cardiotoxicology and Scientific Evaluator on Italy, Poland, Romania and Serbia Scientific Programs.</p> <p>I was the Principal Investigator on two funded projects ('Why is mitoxantrone a poison to the heart? Focus on mitochondria, cytoskeleton, and metabolic bioactivation mechanisms' and 'Poisoning the heart with anticancer drugs: is metabolic bioactivation or aging promotion the link to the cardiotoxicity of anticancer drugs?'), being participant on several others. As a participant, I was enrolled in the funded project: <b>A role for Nrf2/ARE cytoprotective signalling in iron overload. Adaptive response to oxidative stress as a disease modifier in HFE-associated hereditary hemochromatosis</b>, well fitted with this COST. Also, I currently participate on one international project funded by the Centre for International Cooperation in Education (Erasmus+ National Agencies) e European Union "Open access Educational Materials On Naturally Occurring Molecules - sources, biological activity and use").</p> <p>My main areas are oxidative stress, mitochondrial damage, inflammation, proteomics, metabolism and organ toxicity applied to:</p> <ul style="list-style-type: none"> <li>- Cardio-oncology</li> <li>- Chemobrain</li> <li>- With collaborations in the fields of drugs of abuse, diabetes, natural toxins and nanoparticles application.</li> </ul>
Current research topics/ongoing projects	Cardio-oncology and chemobrain both with old and new targeted anticancer drugs

Nfr2-related methodologies/ infrastructure/ equipment	Western blot, FEMSA
Available sample collections/datasets; interested in sharing; yes	Brains, heart, liver and kidneys of animals treated with anticancer drugs Organs of animals treated with flavonoids (in diabetic models and nanoparticles)
Available cohorts/ ongoing/planned human studies/grant applications	None
Interested in STSM: hosting (later); yes	I will be in maternity leave, thus after September 2022 I can host.