

DECLARATION OF PERSONAL INTERESTS

POLICY

It is ICNIRP's aim to provide guidance and recommendations on protection from non-ionizing radiation exposure based on thorough professional evaluation of the published scientific literature. To achieve this goal, ICNIRP relies on the scientific knowledge and judgment of independent experts. For ICNIRP it is imperative to avoid that personal interests of its members affect the independence of ICNIRP's guidance. In this view, the ICNIRP Commission and Scientific Expert Group (SEG) members are asked to declare any personal interests in relation to the activities of ICNIRP.

The declaration of interests is to be completed at the time of acceptance of nomination for an election, updated after election, annually, and each time a change of personal interest occurs. The declarations of personal interests are requested from all:

- candidates to an ICNIRP position;
- ICNIRP Commission members;
- ICNIRP SEG members.

Upon completion and signature, the declaration is to be sent electronically to Dr Gunde Ziegelberger, ICNIRP Scientific Secretary at g.ziegelberger@icnirp.org.

Declarations of all elected members of ICNIRP and its SEG will be posted on the ICNIRP website. All publications of ICNIRP shall contain an acknowledgement with regard to the online availability of the declaration of personal interests.

The declarations are evaluated by the Commission. If there is any conflict of interest, the Commission decides in accordance with the ICNIRP provisions entailed in the Charter and Statutes (see below), about the action required. The general principle of ICNIRP's approach is that neither the personal, nor the professional life, of its members should depend on NIR-relevant commercial entities or any other NIR interest groups. It is recognized that scientific expertise implies a wide range of professional and academic experiences and activities, called personal interests, which however do not per se automatically lead to a conflict. The evaluation of personal integrity is very complex and might be difficult to achieve to the satisfaction of all parties. It is the responsibility of the ICNIRP Board and Commission to carefully consider and decide if the declared interests potentially constitute a conflict of interest.

As per the ICNIRP Statutes, "no member of the Commission shall hold a position of employment that in the opinion of the Commission will compromise its scientific independence. (...) When a change occurs in a member's employment which, in the opinion of the Commission members, may compromise the Commission's scientific independence, the Commission shall decide whether this member can continue to serve". The Commission decision shall be taken by a simple majority vote, either by a formal letter ballot, at a special Commission meeting called for that purpose, or at its Annual General Meeting (ICNIRP Statutes, §6(2)).

Where an elected member's declaration of interest has been evaluated and ICNIRP has concluded that it does not represent a conflict of interest, the reasons for ICNIRP's determination are provided below.

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LAST NAME, First name: Timothy		POSITION WITHIN ICNIRP (SEG or Commission Member, incl. nominee): Leighton	
ACTIVITIES AND ASSETS relating to the years 2017-2021			
<p>Please report activities, relationships and assets below, including any current application or negotiation for future activities, relationships and assets, as well as anything else that could be perceived as potentially representing a conflict of interest in relation to the activities of ICNIRP.</p> <p>Always mention the title of the activity, function, asset listed, and the name of company, organization, or institution involved.</p>			
EMPLOYMENT			
Employer(s), function, title: Professor of Ultrasonics and Underwater Acoustics, University of Southampton, UK		Period: 1992-current	
UNPAID CONSULTANCY, ADVISORY POSITIONS AND SERVICES			
<p><i>These include unpaid consultancy and service as a scientific or other advisor for any commercial or non-commercial organization with an interest in NIR (including membership in scientific councils, associations, etc.) or as part of a regulatory, legislative or judicial process concerning NIR.</i></p>			
<p>Not applicable <input type="checkbox"/></p>			
<p>If applicable:</p>			
<p>Name and description of the activity 1: <u>Sloan Water Technology Limited (SWT)</u>. In 2018 the University of Southampton sold my suite of patents to a start-up company, Sloan Water Technology Limited (SWT). The University passed on a percentage of that one-off sale to me. I have an unpaid position as a Director and as Inventor-in-Chief as SWT. SWT employs a small number of engineers (5 currently). I spend about half a day each week checking the work at SWT and feeding in inventive ideas. SWT equipment does use ultrasound, but it is confined to water, and we have no measurable emissions in air. It is very important to understand that when sound is in water, it is well-known that only around only around 0.1% of the ultrasonic energy can leak out of the water and into air. This does not necessarily mean that one can refrain from checking the levels in air when ultrasound is deployed underwater, but it is not surprising to find only very low levels in air as a result of submerged sources. Furthermore, the frequency is above 100 kHz. For both these reasons I believe the commercial use of ultrasound does not give the appearance of bias when I lend expertise to look at the pressing issues of ultrasound in air and its effects on humans, notably in the frequency bands below 50 kHz.</p>			
Period: 2018-current			
<p>Personal advantages (specify): I get the satisfaction of seeing young (and not so young) engineers in need of work, getting jobs at SWT, and in seeing my ideas take shape as they move towards pilot studies with the UK National Health Service, e.g. on surgical instrument cleaning. SWT supports 2 PhD students at the University, whom I supervise in their fundamental research. That support also covers a part-time administrator and funds to buy the students consumables and equipment. During COVID, when the University labs were closed, SWT allowed the 2 students use of their labs to continue with their studies. If ever SWT makes a profit, I would expect some royalty</p>			

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on the patents I owe. However that will not be occurring, I believe, for at least 3 years. My reputation is increased by my managing to translate fundamental work into a business that employs people and hopefully will one day sell devices to help the NHS and other health services.

Name and description of the activity 2: Member of the Advisory Editorial Board of the journal Ultrasound in Medicine and Biology, the Journal of the Acoustical Society of America, Archives of Acoustics, and the Proceedings of the Royal Society of London A. I am sent journal papers and asked to obtain reviews of them from experts, and submit recommendation to the Editor-in-Chief regarding whether to accept, reject or amend the paper. **Period: pre-2017-current**

Personal advantages (specify): None – it is a service to the academic community.

Name and description of the activity 3: Chair of Royal Society Sectional Committee 4: Engineering, assessing who should join the Fellowship. Member of Royal Society Wolfson Fellowships Committee, assessing where funding should be awarded. **Period: 2017-2019**

Personal advantages (specify): None – it is a service to the academic community.

Name and description of the activity 4: NAMRIP – Founder and chair of the Global network for AntiMicrobial Resistance and Infection Prevention . **Period: pre-2017-current**

Personal advantages (specify): None – it is a service to the academic community.

Name and description of the activity 5: HEFUA Founder and chair of the research group Health Effects of Ultrasound in Air. **Period: 2017-2019**

Personal advantages (specify): None – it is a service to the academic community.

PAID CONSULTANCY, ADVISORY POSITIONS AND SERVICES

These include paid consultancy and service as a scientific or other advisor for any commercial or non-commercial organization with an interest in NIR (including membership in scientific councils, associations, etc.) or as part of a regulatory, legislative or judicial process concerning NIR.

Not applicable

If applicable:

Name and description of the activity 1: Sellafield Ltd. I undertook a paid consultancy through the University of Southampton to support Sellafield Ltd. with a nuclear decontamination problem they had. Because this is a nuclear facility, details are restricted, but the technology involved is closest to an ultrasonic cleaning bath. We did a routine check and found no measurable ultrasound in air because the sound field was all contained within the water (see the explanation above as to why this is not unexpected). **Period: 2017-March 2018**

Name and status of the contractor: I did the work for Sellafield Ltd.

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Income (percentage of yearly laboratory/working group/personal income): 13%

Name and description of the activity 2: Tennant Ltd. I undertook a paid consultancy through the University of Southampton to support Tennant Ltd in the design of an ultrasonic floor cleaning device. The technology involved is closest to an ultrasonic cleaning bath. We did a routine check and found no measurable ultrasound in air because the sound field was all contained within the water (see the explanation above as to why this is not unexpected). **Period: Sept 2016 – Dec 2017**

Name and status of the contractor: I did the work for Tennant Ltd.

Income (percentage of yearly laboratory/working group/personal income): 25%

RESEARCH SUPPORT RECEIVED FROM COMMERCIAL ENTITIES

These are research support, grants, collaborations, sponsorships, other funding and in-kind support valued at more than EUR 1000 overall (including equipment, facilities, staff, paid travel to meetings, etc.).

Not applicable

If applicable:

Name and description of the activity: Tabulated below – note I already detailed interactions with Sloan Water Technology Ltd., Sellafield Ltd., and Tennant Ltd. in sections above. **Period: 2017-current**

Name and status of the contractor: Tabulated below

Unit receiving and managing the research funding from the above activity (University/Unit/Laboratory/Personal Research Fund/Other): University of Southampton

Income (percentage of yearly laboratory/unit/personal income): No personal income received – all income went to University of Southampton to pay for equipment, research staff etc., but none went to my take-home pay.

Are you free to publish whatever results your research shows without the influence from the entity funding your research?

Yes Please specify the wording used in the contract: Standard funding contracts between Government research councils and university, or EU research sponsor (H2020) and Universities. I am free to publish.

No Please describe how your independence is safeguarded:

2016-20	Leighton	Glaxo Smith Kline and BBSRC	The use of a novel ultrasonic technology to effectively	0% went to Leighton personally The grant supported the
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			control dental plaque biofilms (BB/P504981/1) + studentship (1962648)	research of a PhD student + consumables (which constituted about 29% of that year's laboratory research funding).
17-21	Leighton	VitaCress	Salad cleaning with ultrasound (Industry fully funds studentship plus equipment/travel)	0% went to Leighton personally. The grant supported the research of a PhD student + consumables (which constituted about 0.7% of that year's laboratory research funding).
2018	White, Leighton	RED Scientific	Measurement of oceanic bubble populations	0% went to Leighton personally. The grant supported the research of a PhD student + consumables (which constituted about 10% of that year's laboratory research funding).

INVESTMENTS AND COMMERCIAL INTERESTS

Investment and commercial interests mean investments in a commercial entity, in a trust or holding company. This includes any commercial business interests (e.g., proprietorships, partnerships, joint ventures) and indirect investments such as a trust or holding company, stocks, bonds, stock options, or other securities. Broadly diversified mutual funds, pension funds or similar investments that are broadly diversified and on which the member does not exercise control are excluded. Members shall declare any current, past or planned investments and commercial interests they hold in the NIR area, when such an interest is valued at more than EUR 1000.

Not applicable

If applicable:

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Name of the investment/share: Income (as a percentage of yearly personal income):	Period:
INTELLECTUAL PROPERTY <i>Intellectual property is patents, trademarks and copyrights (also pending applications) and proprietary know-how in a substance, technology or process.</i>	
Not applicable <input type="checkbox"/> If applicable:	
Designation of the property: Patents granted, and sold by University of Southampton to Sloan Water Technology Income (as a percentage of yearly personal income): 40%	Period: 2018-2020
ADDITIONAL INFORMATION* <i>This includes information concerning the interests of a person with whom the member has personal or professional ties (such as a family member or close colleague) when that person's interests (professional activities or financial engagements in the NIR area) may be impacted positively or negatively by the work of ICNIRP.</i>	
To your knowledge, would the outcome of your activities within ICNIRP benefit or adversely affect interests of others* with whom you have substantial common personal, financial or professional interests (such as family members or colleagues)?	
Yes <input type="checkbox"/> Please provide a description of the others' interests that are potentially affected by your ICNIRP activities:	Period:
No <input checked="" type="checkbox"/>	
Is there any other aspect of your personal background or present circumstances not addressed above that might be perceived as affecting your objectivity or independence?	
Yes <input type="checkbox"/> Please provide a description of the other aspects that are potentially affecting your objectivity or independence:	Period:
No <input checked="" type="checkbox"/>	

I hereby declare that the disclosed information is true and complete to the best of my knowledge. Should there be any change to the above information, I will promptly notify the ICNIRP Secretariat and complete a new declaration of interests which takes the changes into account.

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I hereby provide my consent that my declaration of interest will be made available publicly via the ICNIRP website as per the condition stated under “policy”.

Date: **1 February 2021**

Name: **Timothy Leighton**

Signature:

Signature covered by ICNIRP
Signature covered by ICNIRP
Signature covered by ICNIRP
Signature covered by ICNIRP

* Information provided here may be protected by privacy rights. ICNIRP will anonymize this field before DOI disclosure.

COMMENTS FROM ICNIRP ON THIS DECLARATION OF INTERESTS:

As Dr Leighton's advisory and research activities as well as the revenue generated by his patents are not relevant to his involvement within the PG airborne ultrasound and the ICNIRP's non ionizing adverse health mandate in this area, ICNIRP does not consider that these represent a conflict of interest. Approved.