**OFFER OF TRAINING FORM SUMMER 2022**

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| **Proposer details:**  |
| Title:  | Porphyrin-based singlet oxygen carrying materials for water remediation |
| Name: | Prof. Dr. Mathias O. Senge |
| Email: | sengem@tcd.ie |
| Website: | <https://www.sengegroup.eu/>  |
| If your grade does not allow you to supervise students, please supply the name of support PI:  |  |

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| **Student required:** |
| Specify any previous training / experience the student should have: |
| Fundamentals in chemistry, physics, biology |
| Study level (3rd year, 4th year) | 3rd year and 4th year |
| Any other requirements: | none |

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| **Traineeship offered:**  |
| Brief job description: (please include (1) type of work, (2) what student should hope to achieve at end of the process, (3) who will supervise student on daily basis (post-doc etc.)) |
| (1) Synthetic bioorganic chemistry, (2) work in an internationally leading, multicultural and multidisciplinary research group, development of research level laboratory skills, planning and executing target-oriented syntheses, preparation of results for publication, publication (3) supervision by PI and Dr. Grant Strachan (postdoctoral fellow)***Brief project outline:***Molecular design of functional porphyrins for water remediation. Nonplanar porphyrin materials will be synthesized which are specific for the encapsulation of persistent organic pollutants. Analytical studies will target the photochemical degradation of pollutants using singlet oxygen carrier molecules. Further reading: <https://www.project-initio.eu/> , <https://doi.org/10.1002/anie.201806281>, <https://doi.org/10.1039/C7NJ04679K> |
| Link to research group or supervisor webpage: | <https://www.sengegroup.eu/>  |
| Location of lab: | School of Chemistry, Chair of Organic Chemistry, Trinity Biomedical Sciences Institute, 7th floor |

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| **Working hours:**  |
| Number of Weeks offered: | 12 |
| Hours per week:  | 40 |
| Earliest Start Date possible:  | Any time |
| Latest End Date possible:  | Any time |