# PostDoc Job Opportunity

| DUBLIN CITY UNIVERSITY | First Name | Last Name | email | Institute | Address |
|---|---|---|---|---|---|
| PI name & contact details: | Anne | Parle-McDermott | Anne.parle-mcdermott@dcu.ie | DUBLIN CITY UNIVERSITY | Glasnevin, Dublin 9, Ireland. |
| School: | Biotechnology | | | | |
| Research Centre / group affiliation: | Centre for Preventative Medicine | | | | |
| Research group / centre website: | http://energylab.eeng.dcu.ie/energylab/ | | | | |

**Brief summary of research group / centre activity:**
Understanding the molecular mechanism of the role of folate in human health and disease with a particular focus on mitochondrial folate enzymes.

**Description of postdoctoral project on offer:**
The relevance of folate status for mitochondrial DNA heteroplasmic load:
While the majority of the mtDNA in healthy individuals is identical (homoplasmic) with no pathogenic mutations, it is clear that the accumulation of mutations does occur in mtDNA during one's lifetime and as a precursor to disease. The ratio of 'mutant': 'wildtype' mtDNA may be referred to as the heteroplasmic load and it is believed that the threshold leading to disease is influenced by this load. We propose that the heteroplasmic load is influenced by folate supply and as we age and that characterisation of this load will potentially be useful as biomarker for disease prior to the onset of symptoms and will highlight the importance of maintaining optimal folate supply for healthy ageing.

**Please indicate the core skills or disciplines that are required for this position:**
Molecular biology: PCR, DNA Sequence analysis, recombinant DNA cloning. Basic statistics. Mammalian cell culture.