Recording your Continuing Professional Development

Introduction

This document provides UKRT registrants with Continuing Professional Development (CPD) advice and examples from real CPD records.

Should you have any questions regarding the information provided in this document, or find that the document does not address your concerns, please contact us at toxreg@rsb.org.uk.

CPD and re-registration

Members of the UKRT are required to apply for renewal of their registration every 5 years. In the re-registration application, they must demonstrate continued engagement in the practice of toxicology, evidencing an appropriate programme of CPD. The Panel of the UKRT will assess an individual's suitability for re-registration on the basis of evidence of continuing involvement in toxicology and the quality of the CPD record.

Applicants for re-registration are required to submit their CPD record over the preceding 5 years. CPD records should be maintained using the Royal Society of Biology's online *Learning for Life* system (unless the applicant in registered for another recognized CPD scheme such as that offered by the Royal College of Pathologists).

For advice on recording your CPD on the Royal Society of Biology's online system, please refer to the Learning for Life document found on the RSB website.

What are reflective notes?

The UKRT Panel require reflective notes to be provided against each CPD activity recorded. The purpose of a reflective note in your CPD portfolio is twofold. Its preparation helps you to reflect on an educational activity or experience, enabling you to appreciate what learning took place, what stimulated it and how it affected you. In addition, it forms a written record of the activity undertaken. Reflective notes should include the following points:

- *What prompted the CPD activity? For example, why did you attend a conference, decide to take a training course or read a specific journal article?*
- *Record at least one learning point. You may also wish to record the outcome of the learning and note any actions you intend to take as a result.*
- *Will the activity benefit others who come into contact with your work?*
- *Has the activity resulted in any future learning needs?*

What activities can I record as CPD?

The purpose of your CPD record is to demonstrate that you are actively engaged in the profession of toxicology. When assessing a CPD return the Panel looks for a wide variety of activities, including both job-related and extracurricular activities. The former can include, for example, background reading in preparation for writing a report, journal clubs and departmental seminars while external activities like conferences, attending public lectures and reviewing journal papers would fall under the heading of "extracurricular activities".

Try to include as wide a range of activities as possible. If you are in any doubt as to whether to include a particular item just go ahead and do so: you will never be penalised for including extra information but a lack of variety in the activities recorded can lead the Panel to query a return.

Example CPD Records

The following two CPD records are real examples from UKRT registrants which demonstrate the variation and level of reflection required for continued UKRT registration.

Year from 4 November 2018 until 3 November 2019

Category	Max. Pts	Items	Base Total	Pts Earned	
Work Based Learning	20.0	2	12.0	12.0	
Professional Activity	20.0	3	109.0	20.0	(*)
Formal/Educational	30.0	7	96.0	30.0	(*)
Self-directed Learning	10.0	1	25.0	10.0	(*)
Other	10.0		0.0	0.0	
Total Number of Points earned over the year:				**72.0**	

(*) *Indicates categories with capped totals*

Recorded Entries

2019-10-11 **Work Based Learning: Discussions with Colleagues**

As part of an exercise to facilitate collaborative work with [redacted] University [redacted] I helped organise a visit to the UK for two of their researchers to learn about various advanced analytical chemistry techniques available. Due to my workload, I was only able to join the two researchers for two visits during the week: to see the analytical chemistry facilities at [redacted] and be talked through various technologies by [redacted] experts, and a visit to the [redacted]

Review: The primary objectives for the week were to forge collaborative relationships with the researchers from [redacted] and to show them a range of advanced analytical chemistry techniques that they do not have access to - and often weren't aware of - at their university. Although workload prevented me from joining them for some other visits [redacted] the two visits I did attend were useful in also opening my eyes to what now is - and what still isn't - possible, using advanced microscopy techniques and assay techniques. [redacted] usually apply these techniques to analysing catalysts and R&D products, so it was interesting to talk with the chemists to explore how they would modify their approaches to handle biological materials. The visit to the [redacted] was especially interesting. They have the capability to, for example, show a section of ex-vivo skin to which a product has been applied, and show exactly where the various metals in the product have permeated to, through colour coding of different chemicals. One example showed very distinct layers as the different metals differentially permeated the skin. A new learning for me was also 'clustermarket' - used by the [redacted] - which was described to us as 'Airbnb for use of scientific equipment'.
The visits [redacted] included really useful discussions about how the techniques covered could be applied to the research areas of interest to [redacted] and myself (as collaborator and sponsor of some [redacted] research). We left with plans for some immediate additions to a current project, as well as ideas for future projects.

4 Hours, 8.0 Base Point(s)

2019-09-05 **Professional Activity: Networking with other professionals**

Following reading a scientific paper on respiratory sensitisation in mice from skin exposure to chloroplatinates*, I contacted the lead author and had a telephone conversation with him for over an hour, during which we discussed the work as well as other releated research he had done that was not published.

[redacted]

Review: Although my initial email correspondence with the paper's lead author seemed unpromising [redacted] follow-up emails resulted in an impromptu telephone conversation that lasted around an hour and 15 minutes. Being able to speak with eachother directly, rather than simply via written messages, facilitated a much more open 'scientist to scientist' discussion during which we not only discussed the study that was published i nthe paper, but also other similar work they had done that had not been published, including work that did not produce the results they expected. Through our discussion, we arrived at a possible reason for the unexpected finding. We also discussed a similar project I may be involved in and explored how best it might be approached based on our various learnings from our experiences to date.
As well as providing valuable insights into the work [redacted] had done, and learnings to consider in my own research, it also highlighted the advantages of speaking with people rather than relying on email.

1 Hour, 1.0 Base Point(s)

2019-06-25 **Work Based Learning: Experiential Learning**

The morning after a platinum group metals (PGM) sector meeting, hosted by a leading PGM company, I was taken on a tour of the platinum group metals refinery (PMR) [redacted]
We walked through the PMR following the path of the PGM from arrival at the plant to exiting the plant as PGM metal or PGM intermediate chemical product. It also covered onsite wastewater treatment and emissions to air.

Review: Although I have visited a PMR before, it was useful to go walk through the process of PGM refining again, as well as to see a different refinery and see some of the differences in equipment and processes - that ultimately may lead to worker exposure to hazardous PGM intermediate chemistries - at different sites. Walking through different parts of the refinery also highlighted measures that had been taken to contain exposures to certain parts of the plant, including through the changing and PPE storage facilities. It similarly provided a valuable reminder of human nature, and that success in controlling chemical exposures relies on the positive engagement of workers - and that even in a modern company that has invested significantly in new equipment and processes to reduce chemical exposures, as well as worker training and awareness initiatives, sometimes workers will still take shortcuts, for example not storing their PPE correctly.
It was also a warm day - around 30 degrees C - and warmer in some areas of the PMR facility, which provided some first-hand experience of the need to ensure measures implemented to control worker exposures to chemicals - in particular PPE - are considered in light of the working conditions.

2 Hours, 4.0 Base Point(s)

2019-06-18 **Formal/Educational: Attendance at Training Course**

I attended Charles River's two-day [redacted] Genetic Toxicology Workshop in Den Bosch, The Netherlands. The workshop comprised a series of lectures on different genotoxicity assays, testing strategies, and alternatives to testing, complemented by a tour of CRL's genotoxicity laboratories

Review: The workshop provided a useful opportunity to recap on a wide variety of genotoxicity assays, confirm my knowledge is current, and to speak directly with Study Directors and experts about specific topics and testing programmes I have coming up, as well as network with existing contacts and develop new ones. The tour of the genotoxicity laboratories provided a valuable opporunity to witness the tests being performed, which provided greater clarity on some of the realities and practicalities, as well as consolidating the theory covered previously in the lectures.

14 Hours, 28.0 Base Point(s)

2019-06-11 **Formal/Educational: Distance Learning**

I attended a webinar organised by the US National Institute of Standards and TEchnology (NIST) and the National Nanotechnology Institute (NNI) titled: Practical Applications of 15 Years of NanoEHS Research: Measurements of Potential Ecotoxicological Risk.

Review: The webinar provided a quick useful reminder of some of the challenges in assessing the toxicity of nanomaterials, as well as new learnings. It was useful in the breadth of coverage, highlghting potential issues along the whole process of nanoecotoxicology testing, from procurement of test material, to storage, deipersion, measurement of toxicity endpoints, and characterisation of the nanomaterial in tissues. There were not always answers or concensus on how to tackle certain challnges, but greater knowledge of the issues was valuable (e.g. OECD Test Guidelines frequently specify that the exposure concentration during the test should change by less than 20% - but by what metric, e.g. mass, nanoparticle number, or surface area-based concentration?) and means that I will be more informed in my future assessment of nanoecotoxicology studies and potentially even a sponsor of some.

1 Hour, 2.0 Base Point(s)

2019-04-24 **Formal/Educational: Distance Learning**

I attended a webinar titled "New Approaches for Respiratory Sensitization", co-organised by the International Science Consortium of PETA (People for the Ethical Treatment of Animals), the US Environmental Protection Agency, and the Physicians Committee for Responsible Medicine. The webinar covered chemistry-based means of identifying respiratory sensitisers, presented by Dr Steve Enoch of Liverpool John Moores University, and in vitro models to identify respiratory sensitisers, presented by Arno Gutleb of the Luxembourg Institute of Science and Technology (LIST).

The chemistry-based assessment presentation covered structural alerts and the Direct Peptide Reactivity Assay (DPRA); the in vitro presentation briefly compared the mouse (the favoured in vivo model) with humans, before discussing air-liquid interphase culture, the GARDair assay by Senzagen, and VitralizeMe by LIST.

https://www.piscltd.org.uk/nam-webinars/

Review: It was a useful webinar to help stay up-to-date with me knowledge of tools for identifying respiratory sensitisers - and discriminating them from skin sensitisers. Here the chemistry-based techniques remain to my mind limited. Structural alerts are limited and simplistic on their own - and apply to organic chemistries, and the Lysine to cysteine reactivity ratio in the DPRA is not a reliable differentiator between respiratory and skin sensitisers. The progress in identifying structural alerts and their inclusion in the OECD QSAR Toolbox was interesting learning, though.

The second presentation on in vitro techniques was interesting and much of it was new - I had not even heard of VitralizeMe before. GARDAir focusses on genomics techniques to identify respiratory sensitisers, while VitralizeMe uses a 3D alveolar model cultured at the air-liquid interface and comprising alveolar type II epithelial cells (A549), endothelial cells (EA.hy926), macrophage-like cells (PMA-differentiated THP-1), and dendritic-like cells (non-differentiated THP-1), to which test compound is exposed via nebulisation, and assess for respiratory sensitisation potential by a panel of 11 endpoints comprising cell surface markers, cytokine release, and gene expression. [redacted]

1 Hour, 2.0 Base Point(s)

2019-04-15 **Formal/Educational: Attendance at Conferences or Scientific Meetings**

I attended the British Toxicology Society's annual congress, which was held jointly with the UK Environmental Mutagen Society (UKEMS) [redacted] in Cambridge.

Files: `Certificate of Attendance BTS-UKEMS.pdf`

Review: I had not attended the BTS annual congress for a number of years, having generally attended larger conferences such as Eurotox or SOT. In addition to the useful scientific programme - which due to the collaboration with UKEMS was focussed on genotoxicity - the congress also provided a useful opportunity to reconnect with a number of fellow toxicologists and the BTS itself.

17 Hours, 34.0 Base Point(s)

2019-02-27 **Formal/Educational: Attendance at Conferences or Scientific Meetings**

I attended a one-day meeting co-sponsored by the Royal Society of Chemistry (RSC) and the Interdepartmental Group on Hazards and Risks of Chemicals (IGHRC) on "Meeting the challenges of global chemicals regulations". The meeting inevitably included talks about the UK and chemicals regulation after Brexit, but also presentations focussed on other regions, such as USA's TSCA and South Korea's chemicals legislation (often called K-REACH), and more global perspectives.

Review: It didn't seem obvious why this meeting was organised in the format it was, mixing regulations of a couple of specific foreign countries (e.g. Korea and USA) with domestic challenges of Brexit and what chemicals regulations will apply after the UK leaves the European Union. Overall, it was still a useful update though, and provided some interesting insights into government, politics and trade deals - in particular the talk by Tim Harris of the Department for International Trade.

6 Hours, 12.0 Base Point(s)

2019-02-07 **Self-directed Learning: Upgrading knowledge**

On reviewing a draft manuscript reporting some research on the [redacted] I was disappointed with the complete focus on chemistry with no real attention to toxicology - which is the purpose of the [redacted] and the paper should be targetted to a toxicology audience. I therefore offered to re-write the Abstract and Introduction of the paper, plus revise parts of the Discussion, without altering the Methods or Results. This required a significant amount of reading of publications on the [redacted] its validation, and its application to inorganic compounds, in order to draft an informative and accurate account that was appropriate for the toxicology community and suitable for publication.

Publications read included:

Romagnoli et al (1991) Selective interaction of nickel with an MHC bound peptide. The EMBO Journal, 10(6), 1303-1306.

Gerberick et al (2004) Development of a Peptide Reactivity Assay for Screening Contact Allergens. Toxicological Sciences, 81, 332-343.

Divkovic et al (2005) Hapten?protein binding: from theory to practical application in the in vitro prediction of skin sensitization. Contact Dermititis, 53, 189-200.

De Wall et al (2006) Noble metals strip peptides from class II MHC proteins. Nature Chemical Biology.

Gerberick et al (2007) Quantification of Chemical Peptide Reactivity for Screening Contact Allergens: A Classification Tree Model Approach. Toxicological Sciences, 97(2), 417-427.

Gerberick et al (2008) Chemical Reactivity Measurement and the Predictive Identification of Skin Sensitisers. ATLA, 36, 215-242.

Makrilla et al (2010) Hypersensitivity reactions associated with platinum antineoplastic agents. a systematic review. Met. Based Drugs.

Schmidt et al (2010) Crucial role for human Toll-like receptor 4 in the development of contact allergy to nickel. Nature Immunology.

Chipinda et al (2011) Haptenation: Chemical Reactivity and Protein Binding. Journal of Allergy.
OECD (2012) The Adverse Outcome Pathway for Skin Sensitisation Initiated by Covalent Binding to Proteins. Part 1: Scientific Evidence.

EURL ECVAM (2012) Direct Peptide Reactivity Assay (DPRA) ECVAM Validation Study Report.
EURL ECVAM (2012) Addendum to the Direct Peptide Reactivity Assay (DPRA) ECVAM Validation Study Report.

EURL ECVAM (2012) Direct Peptide Reactivity Assay (DPRA) ECVAM Validation Study Report - Appendix

EC-JRC (2013) EURL ECVAM Recommendation on the Direct Peptide REactivity Assay (DPRA) for skin sensitisation testing.

Lalko et al (2013) The selective peptide reactivity of chemical respiratory allergens under competitive and non-competitive conditions. Journal of Immunotoxicology, 10(3), 292-301.

Wang and Dai (2013) Structural basis of metal hypersensitivity. Immunol. Res. 55(0), 83-90.

Clayton et al (2014) Structural Basis of Chronic Beryllium Disease: Linking Allergic Hypersensitivity and Autoimmunity. Cell, 158, 132-142.

Kimber et al (2014) Chemical respiratory allergy: Reverse engineering an adverse outcome pathway. Toxicology, 218, 32-39.

Schmidt and Goebeler (2015) Immunology of metal allergies. Deutsche Dermatologische Gesellschaft.

Dik et al (2016) Can the Direct Peptide Reactivity Assay Be Used for the Identification of Respiratory Sensitization Potential of Chemicals? Toxicological Sciences, 153(2), 361-371.

Saito et al (2016) Molecular mechanisms of nickel allergy. Int. J. Mol. Sci., 17, 202.

Wong et al (2016) Evaluation of a High-Throughput Peptide Reactivity Format Assay for Assessment of the Skin Sensitization Potential of Chemicals. Frontiers in Pharmacology.

Sullivan et al (2017) An Adverse Outcome Pathway for Sensitization of the Respiratory Tract by Low-Molecular-Weight Chemicals: Building Evidence to Support the Utility of In Vitro and In Silico Methods in a Regulatory Context. Applied In Vitro Toxicology, 3(3), 213-226.

Wareing et al (2017) Prediction of skin sensitization potency sub-categories using peptide reactivity data. Toxicology In Vitro, 45, 134-145.

Gibbs et al (2018) Assessment of metal sensitizer potency with the reconstructed human epidermis IL-18 assay. Toxicology, 393, 62-72.

Kimber et al (2018) Skin and respiratory chemical allergy: confluence and divergence in a hybrid adverse outcome pathway. Toxicology Research, 7, 586-605

Parkinson et al (2018) Determination of Protein Haptenation by Chemical Sensitizers Within the Complexity of the Human Skin Proteome. Toxicological Sciences, 162(2), 429-438.

Review: Although my co-authoring of the paper was unplanned, it did provide an opportunity and justification for dedicating time to upgrading my knowledge about the [redacted] and also the biological mechanisms behind the sensitisation potential of certain metals - in particular nickel for which the mechanism is different to that for 'low molecular weight chemicals' in general (typically organics), and seemingly was the reason behind the [redacted] conclusion that " This test method is not applicable for the testing of metal compounds since they are known to react with proteins with mechanisms other than covalent binding".
Ultimately, I believe the manuscript was significantly improved by my alterations, despite the final manuscript seeming a product of two independent contributions rather than a collaborative effort - which may be picked up on during peer review. The manuscript has been submitted for publication.

25 Hours, 25.0 Base Point(s)

2019-01-22 **Formal/Educational: Attendance at Conferences or Scientific Meetings**

I attended a one-day meeting co-sponsored by the Royal Society of Chemistry (RSC) and the UK Interdepartmental Group on the Hazards and Risks of Chemicals (IGHRC) on biomonitoring. This was the first IGHRC meeting since its evolution to consider environmental risks as well as human health (previously IGHRC was the Interdepartmental Group on the Health Risks of Chemicals), and several of the talks addressed ways in which biomonitoring is advancing understanding of exposures and risks to wildlife.

Review: [redacted] The organisation of the meeting was a positive move in that it was an open meeting held at RSC in London. It was a very interesting meeting, some of which was very relevant to my work [redacted] while other talks were of less direct relevance but nonetheless interesting and provided a rounded appreciation of how biomonitoring is currently used in the UK (e.g. the predatory bird scheme, the Cardiff Uni Otter Project, and the somewhat depressing Killer Whale Apocalypse).
Some Platinum Group Metals companies use biomonitoring as part of their health surveillance programmes, but it is not common. As biomonitoring becomes more commonplace in research and life in general, though, this may change.

6 Hours, 12.0 Base Point(s)

2018-12-05 **Formal/Educational: Attendance at Conferences or Scientific Meetings**

I attended an event in Brussels organised by the European Precious Metals Federation (EPMF) on 'Conflict and opportunity: Chemical management, the Circular economy and Precious metals'. The speaker line-up included Geert Dancet (ex head of the European Chemicals Association), as well asa representiatives from ECHA, European Commission GD Grow and DG Environment, and industry.

Review: The event highlighted the challenges faced in moving the precious metals industry into a more circular modus operandi. Metals, including precious metals, would intuitively be considered prime candidates for and early adopters of a circular economy transition; however, the reality is more complex and challenging. The trade-off between the benefits of recycling substances containing Substance of Very High Concern (SVHCs) and of the related costs of keeping these substances in the economy without jeopardizing health and safety is the major consideration on which agreement is difficult. The current regulatory positions of the territories within which industry operates also makes moving to a more circular precious metals economy challenging - e.g. differences in defining waste and also then hazardous waste - and 'kafkaesque' was mentioned several times during the afternoon.

Overall, attendees from the public and private sector recognised the issues and identified the theoretical high-level discussions and decisions that need to take place to move this issue forward. It will be interesting to see how - and at what pace - this translates into action.

3 Hours, 6.0 Base Point(s)

2018-11-12 **Professional Activity: Professional Body Involvement**

I am a member of the Toxicology Group Committee of the [redacted]. In addition to regular email communications, the Committee meets four times a year (for approximately four hours each time). We organise toxicology-related scientific meetings and workshops on behalf of the [redacted], contribute to and review [redacted] Position Papers and Guidance notes, and represent links between the [redacted] and other toxicology-related professional societies such as the [redacted]

Review: My participation in this active committee provides a useful opportunity to be updated on various toxicology-related activities and events, as well as networking opportunities, on top of contributing to the work of the committee. In recognition of the excellent work of the Committee - and in particular the development of the Faces of Toxicology video series which I contributed to - we were recently awarded the [redacted] Inspirational Committee award.

20 Hours, 40.0 Base Point(s)

2018-11-12 **Professional Activity: Professional Body Involvement**

I am a member of the Executive Panel of the [redacted]. This involves the review of applications to the Register prior to meetings and attendance at [redacted] meetings each year to finalise the Panel's judgements as well as discuss other matters relating to the Register and its operation. [redacted]

34 Hours, 68.0 Base Point(s)

Year from 17 February 2019 until 16 February 2020

Category	Max. Pts	Items	Base Total	Pts Earned	
Work Based Learning	20.0	2	12.0	12.0	
Professional Activity	20.0	5	34.0	20.0	(*)
Formal/Educational	30.0	3	44.0	30.0	(*)
Self-directed Learning	10.0		0.0	0.0	
Other	10.0		0.0	0.0	
Total Number of Points earned over the year:				**62.0**	

(*) *Indicates categories with capped totals*

Recorded Entries

2019-11-11 **Formal/Educational: Attendance at Training Course**

1-hour lecture on the potential and limitations of computational toxicology, by David Woolley (ForthTox), held as part of BAT's internal Continuing Education Programme for toxicologists. Certificate of attendance attached.

Files: `Cert_of_Attendance_BAT-D_Woolley_comp_tox_11Nov2019.pdf`

Review: Philosophical approach, questionning when it might be useful "just because you can doesn't mean you should".
Limitations of comp tox approach, e.g. cannot predict the unexpected, contaminants, new developments, etc.
Example of data that was developed for other purposes being codified into systems and leading to wrong conclusions.
Main message: understand where the data comes from, can't use QSARs in isolation.

1 Hour, 2.0 Base Point(s)

2019-09-23 **Professional Activity: Technical Group Membership**

Member of [redacted] Working Group on [redacted]. There was only one whole WG meeting this year, where main agenda items were on developing a [redacted] However, in the sub-group on [redacted] via email and calls, we developed two different draft methods to put forward to the wider Technical Committee, based on consistency within a product , versus across product batches.

Review: Good discussions on what does "consistency" mean. But frustrating lack of data meant we could only agree on methods and no acceptance criteria.

5 Hours, 10.0 Base Point(s)

2019-07-17 **Formal/Educational: Writing Articles or Papers**

Co-author on: [redacted]

Review: Very interesting as using a new data source. Obtaining [redacted] behaviour from videos downloaded from social media. My role had been mainly in the discussion, to put into context the effect the findings were likely to have on consumer exposure, but in the mean time I learned a fair bit about this new approach to data gathering. despite its obvious limitations, it has a few unique advantages as well and can certainly contribute to over weight of evidence appraches to information.

1 Hour, 2.0 Base Point(s)

2019-06-14 **Professional Activity: Presentation Giving or Discussant**

Chaired a 1.5 hour session entitled[redacted] at the Global Forum on[redacted]

Review: I made sure the speakers in my session shared their work with each other beforehand, hoping to stimulate discussions and ensure no duplication. Also allowed me to prepare questins in case the audience had none. Keeping speakers to time was the big challenge!

1 Hour, 2.0 Base Point(s)

2019-06-11 **Professional Activity: Technical Group Membership**

Joined the[redacted], sub-committees on[redacted] and on toxicology. Had two full day meetings of each, but particularly the toxicology one was a lot of work (and educative).

Review: Urgent project for the toxicology group is to update the guidance on toxicological risk assessment ofor ingredients for[redacted]. I have contributed, amongst others, with a new section on[redacted] and the discussion with fellow committee members on which[redacted] may be appropriate for which subgroups of ingredients/emissions/contaminats, etc brought further useful insight of nuances.

Note, the technical body participation is not officially part of my current role [redacted] but because of my R&D background I am the most appropriate peson to go so my boss supports the travel involved anyway.

5 Hours, 10.0 Base Point(s)

2019-06-05 **Professional Activity: Lecturing or Teaching**

Gave presentation at[redacted] conference in London[redacted]

Review: Highlighted challenges of developing standards in a technically still developing industry. Also requirement to future proof versus being sufficnelt specific that standards are enforceable. gave specific example of considerations in requirements for ingredient selection in[redacted] generic restrictions versus toxicological risk assessment requirement. Good discussion with several people afterwards, both from regulators and smaller companies.

1 Hour, 2.0 Base Point(s)

2019-06-04 **Work Based Learning: Course Development**

Attaended[redacted] conference and preceding workshop on flavours,[redacted], London, UK.
Agenda nolonger available via link, so attach pdf.
Attended two full days but will only claim 5 hours as already claiming an hour for giving alecture here as well, and much of the talks were not that educative for me as my daily job means I'm already aware of developing regulations.

[redacted]

Review: Mainly regulatory professional audience. Outside of the lectures, good to hear people's thoughts on how the increasing adverse publicity about vaping may affect future regulations.

1 Hour, 2.0 Base Point(s)

2019-03-01 **Professional Activity: Technical Group Membership**

My most active European standardisation working group this year was [redacted] This multi-stakeholder group is responsible for developing standards to ensure the safety and quality of [redacted] so ranges from quality assurance aspects to toxicology of ingredients and [redacted] I am the project lead on the [redacted] ingredient project. With a smaller sub-group we discussed and drafted the proposed requirements on ingredients selection, toxicological risk assessment and labelling for [redacted]

Review: Very educative activity due to the varied nature of the stakeholders. Discussions focussing on how to best balance the need for high level of consumer safety and realistic requirements given the various levels of toxicological competence of the mix of producers and enforcement authorities involved.
Several full day meetings and as project lead I spent several days drafting (and redrafting) the proposed document, but will claim 5 hours in line with committee membership guidelines.

5 Hours, 10.0 Base Point(s)

2019-02-20 **Formal/Educational: Attendance at Conferences or Scientific Meetings**

2019 annual conference of Soc of Research on [redacted] & associated pre-conference [redacted] workshop. See attached reflective notes.

[redacted]

Review: [redacted] This conference provides the wider public health context as a result of the toxicology of [redacted] Attendance benefits my external engagement work as I am more aware of the latest thinking of non-industry stakeholders of the benefits and challenges [redacted]

20 Hours, 40.0 Base Point(s)

2019-02-17 **Work Based Learning: Job Rotation, Secondments or Sabbaticals**

The last several years I?d been the Principal Toxicologist for [redacted] As part of my broader continued professional development, from November 2018, I have taken on a new role within the same company, as [redacted] The plan is to do this for approximately two years, to improve my understanding of the communication of science and evidence in a regulatory context. This should then improve my performance when I return to a regulatory toxicology-focussed role back in R&D.

Review: As anticipated, this year has been very educative in many ways. A main aspect is learning to look more at the context of information that only the content. Part of that is also trying to see the longer term strategy and aims of the different stakeholders.
There has been a lot of new aspects and learnings over the year, but am randomly putting in 5 hours so as not to claim on an aspect that is my daily job.

5 Hours, 10.0 Base Point(s)