

| Module Details | |
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| Module Title | Preclinical Models for Drug Evaluation |
| Module Code | INC7001-B |
| Academic Year | 2023/4 |
| Credits | 20 |
| School | School of Pharmacy and Medical Sciences |
| FHEQ Level | FHEQ Level 7 |

| Contact Hours | |
|----------------|-------|
| Type | Hours |
| Lectures | 12 |
| Seminars | 14 |
| Directed Study | 174 |

| Availability | |
|--------------|-------------------------------------|
| Occurrence | Location / Period |
| BDA | University of Bradford / Semester 2 |

| Module Aims |
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| To provide students with the opportunity to develop- The knowledge and ability to solve complex problems and justify their decisions.- Techniques for current and critical evaluation of pre-clinical models used to evaluate potential anti-cancer drugs.- An understanding of the ethics involved in experimental work with animals.- The ability to reflect on their practice to inform and plan their professional development. |

| Outline Syllabus |
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| Topics to be covered include; in vitro based experimental models, biochemical assays for investigating drug target interactions, toxicology (in vitro and in vivo), in vivo models including syngeneic, xenografts and orthotopic models, novel molecular models of tumour biology, non-invasive imaging techniques, endpoint analysis for assessing efficacy and ethical issues associated with animal usage (the 3R's). Emphasis will be placed upon a critical analysis of the value of experimental models in terms of how data obtained in the laboratory setting translates into clinical activity and current or emerging issues in this field, particularly with regards to the ethics of animal testing. |

| Learning Outcomes | |
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| Outcome Number | Description |
| 01 | Demonstrate a systemic understanding of the pre-clinical screening pathway. |
| 02 | Demonstrate a systemic understanding of the types of assays and models which are utilised in the pathway. |
| 03 | Critically evaluate pre-clinical models, their advantages, disadvantages and ethical issues as applied to the field of anti-cancer drug development. |
| 04 | Systematically gather, critically analyse and evaluate data in order to develop screening strategies for specific drug types. |
| 05 | Demonstrate a sound understanding of the relevant ethical and experimental issues involved with using animals in preclinical screening. |
| 06 | Utilise generic literature skills for life-long learning (literature and databases). |
| 07 | Explore ethical considerations when carrying out experimentation. |

| Learning, Teaching and Assessment Strategy |
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| N/A |

| Mode of Assessment | | | |
|--------------------|----------------------|---|-----------|
| Type | Method | Description | Weighting |
| Summative | Coursework - Written | Directed questions on a pre-clinical screening strategy | 30% |
| Summative | Coursework - Written | A detailed essay setting out a pre-clinical screening strategy 0-2000 | 70% |

| Reading List |
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| To access the reading list for this module, please visit https://bradford.rl.talis.com/index.html |

Please note:

This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.