Office of Radiological Protection

Licence

L0155-01

The Environmental Protection Agency, in accordance with the terms of the Radiological Protection Act, 1991 (Ionising Radiation) Order, S.I. No. 125 of 2000, hereby licenses

University of Limerick

Castletroy,
Limerick

to carry on the practice(s) of

Custody, Use

of the Radioactive Substances/Nuclear Devices/Irradiating Apparatus listed in Schedule 2 of this licence for the purposes specified therein and subject to the conditions given in Schedule 1 of the licence. These conditions may be varied or added to from time to time at the discretion of the Environmental Protection Agency.

This licence is valid from

01/04/2015 to 31/03/2017

This licence does not exempt the licensee from compliance with other regulations or statutory requirements relating to the licensed items.

Signed Sarlath Duffy Date 11/05/2015

On behalf of the Environmental Protection Agency

A. GENERAL

1. The licensee shall note that compliance with this licence and its Conditions does not exempt the licensee from compliance with the following: Statutory Instrument No. 125 of 2000, the Radiological Protection (Amendment) Act, 2002, and where applicable, Council Regulation (Euratom) No. 1493/93 of 1993, Statutory Instruments No. 349 of 2011 & No 238 of 2013 and Statutory Instrument No. 875 of 2005.

2. The Radiation Safety Procedures prepared by the licensee shall have regard to the radiological risks and the nature of the practices carried out by the licensee as well as the protective measures identified in the licensee's documented Risk Assessment(s) pertaining to these practices.

3. The licensee shall take all reasonable steps to ensure that the provisions of its Radiation Safety Procedures are observed.

4. The licensee shall ensure that its Radiation Safety Procedures are brought to the attention of, and made available to, the workers concerned.

5. The licensee shall maintain a record of the date on which the Radiation Safety Procedures were made available to the workers concerned and other persons who may be affected by the Procedures. This record must be made available for inspection by Inspectors of the Agency.

6. The Risk Assessment(s) referred to above shall be reviewed by the licensee

   (a) at least once during the period of validity of this licence, and

   (b) immediately, where circumstances arise in which the licensee has reason to believe that the Risk Assessment(s) are no longer appropriate,

   and shall be amended by the licensee where required and the Radiation Safety Procedures revised where necessary.

7. Where there has been a change to the protective measures identified in the Risk Assessment(s) a copy of the revised Risk Assessment(s) and the relevant section(s) of the Radiation Safety Procedures, where amended, shall be submitted to the Agency. The provisions in this licence relating to Radiation Safety Procedures shall also apply to these amended Procedures.

8. The Radiation Safety Procedures shall be reviewed by the licensee

   (a) at least once during the period of validity of this licence, and

   (b) immediately, where circumstances arise in which the licensee has reason to believe that the Procedures are no longer appropriate,

   and shall be amended by the licensee where required.

9. The Radiation Protection Officer(s) (RPO) and Radiation Protection Adviser (for those licensees holding either HASS sources or medical diagnostic imaging equipment) currently appointed by the licensee, are named in Schedule 3. In the event of a change being envisaged, the licensee shall forward to the Agency the name, position within the company and evidence of competence of the proposed new appointee. The notification should be prior to any change taking effect so that the new RPO's appointment can be authorised by the Agency.

10. Where structural or organisational changes are made by other parties to areas adjoining locations where sources of ionising radiation are used, the licensee, in consultation with the appointed RPA, shall undertake a review of the radiation protection measures in place to ensure adequate protection is provided to all members of the public against the hazards associated with the use of the licensed items

11. A copy of this licence shall be publicly displayed in a suitable location on each of the premises listed in Schedule 4.

12. The Schedules to this licence constitute part of the licence and may only be amended by the Agency. The Agency shall be informed in writing of any proposals to change Schedules 2 or 3 of this licence prior to these changes taking effect. Licensed items may not be relocated or replaced, or new licensable items acquired without the licensee securing from the Agency a prior amendment of this licence and/or the Schedules hereto.

13. Irradiating apparatus may only be acquired from a supplier who holds a valid licence from the Agency for the distribution of such irradiating apparatus, or alternatively from another source with the prior approval of the Agency.

14. The licensee shall carry out all practices licensed hereunder in such a manner that the radiation protection of staff and members of the public is optimised and, consequently, exposures are kept as low as reasonably achievable.

15. This licence may be revoked if any of the conditions herein are not observed.

16. The practices authorised by this licence may only be carried out with the items listed in Schedule 2, at the location or locations specified for such items in Schedule 2 and 4, except in the case of transportation, and in accordance with the Conditions set out in this licence. The licensee shall note any licensing restrictions relating to sources that may be specified in Schedule 2.

17. Save where otherwise approved in writing in advance by the Agency this licence authorises the licensee to carry out the practices specified on the first page of this licence only insofar as such practices involve Radioactive Substances, Nuclear Devices or Irradiating Apparatus obtained by the licensee from a supplier holding a current licence from the Agency for the distribution and transportation of the said Radioactive Substances, Nuclear Devices or Irradiating Apparatus.

B. MEDICAL USE OF X-RAY SYSTEMS IN THIRD LEVEL INSTITUTIONS

1. The licensee shall appoint a Radiation Protection Advisor (RPA) to advise on radiological protection and related issues concerning the medical use of irradiating apparatus. The licensee shall consult with its RPA to ensure compliance with all relevant requirements of S.I. No. 125 of 2000. The name of the RPA currently appointed by the licensee is named in Schedule 3. In the event of a change being envisaged, the licensee shall forward to the Agency the name of the proposed new appointee. The notification should be prior to any change taking effect so that the appointment of the new RPA can be approved by the Agency.

2. A sign shall be displayed at appropriate locations advising female patients, prior to undergoing radiological examination, to declare their known or suspected pregnancy.

3. The Agency shall be informed, by the licensee or RPA, of any proposals to change schedules 2, 3, or 4 of this license, with respect to licensed items for medical use, in writing, prior to these changes taking effect. The documentation shall also be signed by the appointed RPO.

4. Without prejudice to any other condition in this licence, licensable items for medical use shall only be acquired with the authorisation of the RPA, the RPO and the Agency.

5. In the case of licensed items intended for medical radiological procedures, the licensee shall ensure that the RPA has commissioned, and is satisfied with the performance of the equipment and that written evidence of this has been forwarded to the Agency prior to it being used on patients.

6. Irradiating apparatus, imaging devices, counting equipment and any other equipment, the performance of which may influence doses, shall be subject to appropriate quality assurance as drawn up by the RPA. This testing shall form part of the commissioning procedure for all newly installed equipment.

7. All entrances to rooms where fixed X-ray diagnostic equipment is operated shall be fitted with a warning system which indicates when X-rays are about to be produced and which remains activated throughout the period of the exposure. Alternatively, the licensee shall take appropriate measures to prevent entry to the room in which the licensed equipment is housed while it is in operation.

C. ACQUISITION

1. Without prejudice to any other condition in this licence, licensable items shall only be acquired with the authorisation of the Agency and the full approval of the RPO.

2. Prior to acquiring a licensable item or commencing a new application or procedure involving a licensable item, the licensee shall carry out an assessment of the risks of exposure to ionising radiation for any worker or member of the public for the purposes of identifying the appropriate protection measures for that item. The licensee shall make and keep records of the assessment.

3. Prior to the acquisition of sealed radioactive sources, the licensee shall obtain written agreement from the supplier that each radioactive source will be accepted back by the supplier when no longer required.

4. The licence shall obtain a traceable leakage test certificate in respect of each radioactive source acquired.

5. In cases where a sealed radioactive source is being acquired to replace an existing source, the licensee shall arrange to return the sealed source being replaced to the manufacturer, or a successor, in accordance with the conditions of this licence.

6. In the case of licensed equipment intended for medical radiological procedures, the licensee shall ensure that the RPA has commissioned, and is satisfied with the performance of, the equipment and that written evidence of this has been forwarded to the EPA prior to it being used on patients.

7. An initial radiation survey shall be carried out by the installer of each newly acquired irradiating apparatus and nuclear device and a copy of the results of the survey maintained by the licensee.

D. DOSIMETRY AND REPORTING LEVELS

1. Notwithstanding the dose limits specified in S. I. No. 125 of 2000, the licensee shall carry out all practices licensed hereunder in such a manner that working conditions are optimised and, consequently, exposures are kept as low as reasonably achievable.

2. A personnel dosimetry programme shall be put in place unless a radiation risk assessment, carried out by the RPA, indicates that operators of X-ray equipment, or other relevant staff, are unlikely to be exposed to a dose exceeding 1 mSv in any 12 month period. The risk assessment shall be documented and forwarded to the Agency for approval.

3. The licensee shall ensure that the risk assessment is reviewed by the RPA on an annual basis. The review shall be documented and shall take account of any changes or modifications to the practice.

4. Where a personal dosimetry programme is in place, the licensee shall:

   (a) Investigate the reason(s) for any unexpected reported dose on a dosimeter and document the findings.

   (b) Where, in any continuous sixteen-week period, doses equal to or greater than the following values have been recorded for an individual, an investigation shall be carried out in conjunction with the appointed RPA: Effective dose 2 mSv Dose to lens of the eye 15 mSv Dose to skin, hands, forearms, feet or ankles 50 mSv

   (c) A copy of the investigation report referred to in (b) shall be forwarded to the Agency within two weeks of notification of the dose to the licensee.

5. In the case of exposed workers the licensee shall:

(a) Investigate and document the findings of any practice, which, in any continuous sixteen-week period, has given rise to reported doses equal to or greater than the following values:

- Effective dose 2 mSv
- Dose to lens of the eye 15 mSv
- Dose to skin, hands, forearms, feet or ankles 50 mSv

(b) Forward a report of the investigation, referred to above, to the EPA within two weeks of notification of the dose to the licensee;

(c) Forward to the EPA, on an annual basis, a summary of all doses received by any Category A workers throughout the preceding twelve months.

E. DESIGN OF NEW RADIOLOGICAL FACILITIES

1. Notwithstanding the dose limits specified in S. I. No. 125 of 2000, locations where nuclear devices, radioactive substances or irradiating apparatus are used or stored shall be designed so that the dose to all persons, other than exposed workers, is less than 0.3 mSv per year (Ref Design Code of Practice).

F. MAINTENANCE QUALITY AND OPERATIONAL CONTROLS

1. The licensed items shall be checked for correct operation and shall be serviced and maintained at least every 12 months or more frequently, depending on use, by suitably qualified and competent persons in accordance with the manufacturer's instructions.

2. Modification of a licensed item or of the area in which it is located shall only be carried out with the prior written authorisation of the Agency.

3. The Licensee, in consultation with the RPA shall develop an appropriate Quality Assurance (QA) programme for all irradiating apparatus, sealed sources, counting equipment and any other equipment, the performance of which may influence doses to staff. This QA programme shall be documented and shall include details of all tests to be carried out by the licensee, routine in-house quality control (QC) tests and frequency of calibration for relevant radiation measuring instruments. The frequency of testing shall also be included. The licensee shall ensure the documented QA programme is implemented.

4. Notwithstanding the QA programme referred to above, all irradiating apparatus shall be subject to an annual QA assessment undertaken by the appointed RPA.

5. All radiation measuring instruments, used in the radiological surveillance of working environments, shall be individually calibrated before first use and annually thereafter, using sources or equipment traceable to appropriate national standards. Calibration records must be maintained for a period of at least five years from the date on which the record is made.

6. Sealed radioactive sources shall be tested for leakage at least once every two years, or more frequently if recommended by the manufacturer. In the case of suspected damage to any radioactive source or its housing, a leakage test shall immediately be undertaken.

7. If the removed activity from any sealed radioactive source is in excess of 200 Bq, use of that source shall be discontinued and the Agency notified.

8. In the case of sealed radioactive sources containing krypton-85 or gaseous tritium, the test for leakage shall be carried out in accordance with the manufacturer’s specifications.

9. The licensee shall ensure that the level of radioactive contamination on any surface does not exceed the following values (averaged over 100 cm^2):

    - In Controlled Areas: Beta/Gamma Emitters - 40.0 Bq/cm^2; Alpha Emitters - 4.0 Bq/cm^2
    - In Supervised Areas: Beta/Gamma Emitters - 4.0 Bq/cm^2; Alpha Emitters - 0.4 Bq/cm^2
    - In Public Areas: Beta/Gamma Emitters - 0.4 Bq/cm^2; Alpha Emitters - 0.04 Bq/cm^2

    A surface with an activity level greater than the above values shall be decontaminated. In the case of contamination of the skin, decontamination procedures shall be immediately carried out if any level of radioactive contamination is deemed to have occurred.

G. SAFETY AND SECURITY

1. The licensee shall have suitable security arrangements in place to prevent, in so far as is possible, the loss or theft of any licensed item and the unauthorised access to, or unauthorised removal from, its assigned location.

2. The licensee shall take all reasonable steps to implement and observe the security arrangements for the prevention of the loss or theft of any licensed item and the unauthorised access to, or unauthorised removal of a licensed item from its assigned location.

3. The Agency shall be notified within seven days of any report from a manufacturer or supplier querying the safety of using a licensed item.

4. The Agency shall be notified of damage to, leakage from, or other incident/accident involving a licensed item, which could or has given rise to an unintended dose, as soon as possible and at the latest within 24 hours of occurrence of the incident/accident.

5. The licensed items shall be clearly labelled at all times and appropriate warning notices shall be used to indicate the ionising radiation hazards associated with these items.

6. Licensed items taken out of use and put into storage shall be stored in a secure location. Radioactive sources put into storage shall be adequately shielded. A visual check of these items, or where a prior agreement has been made with the Agency a check on the on-going security arrangements, shall be carried out at monthly intervals. A record shall be kept of these checks.

7. The licensee shall immediately notify the Agency of the loss or theft of any licensed item.

8. When not in regular use, irradiating apparatus shall be safely and securely stored and clearly identified as being capable of producing ionising radiation. Appropriate measures shall be put in place to ensure that irradiating apparatus cannot be switched on.

9. For transfer between on-site and/or off-site locations, irradiating apparatus shall be carried in a manner that prevents the possibility of it being energized by unauthorized personnel if, for example, the vehicle that is carrying the irradiating apparatus should be stolen.

10. In addition to the standard radiation notices, a warning sign shall be affixed to disused licensed items stating clearly that the items must not be moved from their storage location without the prior authorisation of the RPO and the Agency.

11. The licensee shall ensure that the Chief Fire Officer of the Local Authority is informed annually of the locations of all radioactive substances held by the licensee. A revised plan of the licensee's premises shall be submitted to the Chief Fire Officer following a change in the location of any fixed radioactive source.

12. When not in use, licensed items shall be safely and securely stored in such a manner that radioactive sources are segregated from non-radioactive materials and appropriate measures are in place to ensure that irradiating apparatus cannot be switched on.

13. A suitable warning notice shall be affixed to all licensed items taken out of use and put into storage stating clearly that the items must not be used or moved from their storage location without the prior authorisation of the RPO.

14. The licensed radioactive sources shall not be used for human in-vivo applications.

H. RETURN OR REMOVAL OF SEALED SOURCES AND/OR IRRADIATING APPARATUS

1. Licensed items shall only be returned or removed following receipt of prior written authorisation from the Agency.

2. Disused sealed radioactive substances and nuclear devices shall be returned to the manufacturer, or to a successor company.

3. In the case of disused irradiating apparatus the licensee shall comply with the EPA Guidance Note on Management of X-ray Units at End-of- Life (Ref. WEEE Guidelines).

I. RECORDS

1. The licensee shall make and fully maintain all relevant records for the licensed items. These shall include, but not be limited to, details of acquisitions, leakage tests on radioactive sources, the serial numbers and/or other unique identifiers for licensed items, installation and servicing reports, dates on which Radiation Safety Procedures were made available to the workers concerned and other persons who may be affected by the procedures, instrument calibrations and any associated deficiencies, incidents/accidents, monthly visual checks, radiation surveys, HASS record sheets, returns/removals or other disposal arrangements, individual dose monitoring of personnel and monitoring of areas in which licensable items are located.

2. The licensee shall ensure that all records pertaining to this licence are fully maintained and readily available for inspection, at all reasonable times, by Inspectors of the Agency.

J. DISPOSAL

1. In the case of licences in which the practice of disposal is not specified on the first page, the licensee shall request written authorisation from the Agency to dispose of any radioactive sources.

K. TRANSPORTATION

1. The licensee shall ensure that all activities associated with the transport of radioactive material, including shielding, packaging and labelling, shall be in accordance with the current International Atomic Energy Agency's Regulation for the Safe Transport of Radioactive Material, the Modal Instruments and national transport Regulations.

2. Radioactive sources must be transferred directly from one location to another and transportation by road within the State may only be undertaken with the authorisation of the Agency.

L. EXPORT / IMPORT

1. The exportation of radioactive substances to countries outside the European Union shall be limited to those items marked “For export” in Schedule 2 of this licence and to the supplier/destination specified.

2. The licensees shall obtain written confirmation verifying the receipt of the radioactive substance by the receiving destination and forward it to the Agency.

3. The importation of radioactive substances from countries outside the European Union shall be limited to those items marked “For import” in Schedule 2 of this licence and from the supplier/destination specified.

4. For sealed radioactive sources shipped within the European Union, the Standard Document pursuant to Council Regulation 1493/93 must be completed by the consignee and stamped by the relevant regulator in advance of the proposed shipment. A copy of the 1493/93 form stamped by the relevant regulator must be forwarded to the Agency in advance of shipments from Ireland.

M. REFERENCES

1. Radiological Protection Act, 1991 (Ionising Radiation) Order, 2000 (S. I. No. 125 of 2000).

2. Radiological Protection (Amendment) Act, 2002 (No. 3 of 2002).

3. Council Regulation (Euratom) No. 1493/93 of 8 June 1993 on Shipments of Radioactive Substances between Member States.

4. European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) Regulations 2011 (S.I. No 349 of 2011).

5. European Communities (Carriage of Dangerous Goods by Road and Use of Transportable Pressure Equipment) (Amendment) Regulations 2013 (S.I. No 238 of 2013).

6. Radiological Protection Act, 1991 (Control of High-Activity Sealed Radioactive Sources) Order 2005, S.I. No. 875 of 2005.

7. International Atomic Energy Agency, Regulations for the Safe Transport of Radioactive Material 2012 Edition, Safety Standards Series No. SSR-6 (Vienna: IAEA, 2012).

8. ADR. European Agreement Concerning the International Carriage of Dangerous Goods by Road. UNECE (January 2015).

9. International Civil Aviation Organisation ‘Technical Instructions for the Safe Transport of Dangerous Goods by Air’, 2015-2016 Edition.

10. International Maritime Organisation ‘International Maritime Dangerous Goods Code’, 2014 Edition.

11. Guidelines for Reporting of Incidents, Radiological Protection Institute of Ireland, August 2013.

12. Recording and Reporting of the Disposal of Unsealed Radionuclides Discharged to the Sewers, Radiological Protection Institute of Ireland, March 2004.

13. Management of X-ray Units at End-of-Life, EPA, January 2015.

Licence No: L0155-01 **Expiry Date:** 31/03/2017 **Licensee:** University of Limerick

Premises: Castletroy, Limerick

Location	Source Serial Number	Radioactive Source	Purpose
Main Building Room CO-052	A211		Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	N/A		
Location	**Source Serial Number**	**Radioactive Source**	**Purpose**
Main Building Room CO-052	A211	Americium-241	Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	27	185.00 kBq	FOR COLLECTION BY RILTA ENVIRONMENTAL
Location	**Source Serial Number**	**Radioactive Source**	**Purpose**
Main Building Room CO-052	A7646	Cobalt-60	Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	17	185.00 kBq	
Location	**Source Serial Number**	**Radioactive Source**	**Purpose**
Main Building Room CO-052	A7424	Radium-226	Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	N/A	185.00 kBq	FOR COLLECTION BY RILTA ENVIRONMENTAL
Location	**Source Serial Number**	**Radioactive Source**	**Purpose**
Main Building Room CO-052	A6797	Radium-226	Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	20	185.00 kBq	
Location	**Source Serial Number**	**Radioactive Source**	**Purpose**
Main Building Room CO-052	A6970	Strontium-90	Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	13	185.00 kBq	
Location	**Source Serial Number**	**Radioactive Source**	**Purpose**
Main Buildiing Room CO-052	GU248/CDR8152/V59836	Caesium-137	Higher Education/Research
	Device/Housing Id	**Activity**	**Licensing Restriction**
	N/A	370.00 kBq	

Premises: Main Building, University of Limerick, Limerick

Location	Manufacturer	Model	Purpose
Room No: B0-027	Carl Zeiss Industrielle GMBH	Versa XRM-500	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Premises: Materials & Surface Science Institute, University of Limerick, Limerick

Location	Manufacturer	Model	Purpose
LAB NO: MSG-006	Bruker	D8 Quest	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		CUSTODY AND COMMISSIONING PURPOSES ONLY
Location	**Manufacturer**	**Model**	**Purpose**
LAB NO: MSG-006	Bruker	D8 Quest	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		CUSTODY AND COMMISSIONING PURPOSES ONLY

Premises: Castletroy, Limerick

Location	Manufacturer	Model	Purpose
Main Building Room CO-040	Blake Instruments	Blake INST	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		FOR DISPOSAL
Location	**Manufacturer**	**Model**	**Purpose**
PG 102, Press DXA Scanning Room	GE Medical Systems	iDXA	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		
Location	**Manufacturer**	**Model**	**Purpose**
PG 102, Press DXA Scanning Room	GE Medical Systems	Lunar Prodigy Advance	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		CUSTODY ONLY
Location	**Manufacturer**	**Model**	**Purpose**
Lonsdale Building LB 015	Hewlett Packard	Faxitron Unit	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Location	Manufacturer	Model	Purpose
MSSI Building (MSG006)	PanAlytical Limited	Empyrean	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Premises: Castletroy, Limerick

Location	Manufacturer	Model	Purpose
Main Building XRD Room BO-013	Philips	Sequential XRF 60 kV	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Location	Manufacturer	Model	Purpose
MSSI Building Room MSG-006	Philips	X'Pert Pro MPD	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Location	Manufacturer	Model	Purpose
Main Building XRD Room BO-013	Philips	Xpert PRO Systems	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Location	Manufacturer	Model	Purpose
Main Building Room CO-052	Teltron Ltd London	580 Tel-X-Ometer	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Location	Manufacturer	Model	Purpose
Main Building Room CO-052	Teltron Ltd London	580 Tel-X-Ometer	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Location	Manufacturer	Model	Purpose
Main Building Room CO-052	Teltron Ltd London	580 Tel-X-Ometer	Higher Education/Research
	Type		**Licensing Restriction**
	Fixed		

Environmental Protection Agency

Schedule 3

Office of Radiological Protection

Radiation Protection Officers / Radiation Protection Advisers

Licence No: L0155-01 **Expiry Date:** 31/03/2017 **Licensee:** University of Limerick

Name	Title	Department / Location / Address
Mr. Philip Thornton	Radiation Protection Officer	University ofv Limerick
Name	**Title**	**Department / Location / Address**
X-Spect Ltd	Radiation Protection Advisor	
Name	**Title**	**Department / Location / Address**
Mr. Philip Thornton	Radiation Protection Officer	

Name	Address
University of Limerick	Castletroy, Limerick

Name	Address
University of Limerick	Main Building, University of Limerick, Limerick

Name	Address
University of Limerick	Materials & Surface Science Institute, University of Limerick, Limerick