

# CATALYDDU 2023 CATALYSE

Cyd-greu Dyfodol Technoleg Iechyd  
Co-creating the Future of Health Technology

**Yma yn Sefydliad TriTech, rydym yn cefnogi datblygiad atebion gofal iechyd ar lefel leol, genedlaethol, a byd-eang gan gynnig un pwynt mynediad at y GIG i ddylunwyr a gweithgynhyrchwyr trwy ddull cydweithredol a hyblyg.**

Rydym yn gweithio gyda'n gilydd, fel rhan o Fwrdd Iechyd Prifysgol Hywel Dda, er mwyn:

- Cefnogi gwerthusiadau ac ymchwiliadau clinigol i decholegau meddygol arloesol, gan arwain at well gofal i gleifion;
- Darparu un pwynt mynediad at wasanaethau clinigol i ddylunwyr a gweithgynhyrchwyr technoleg feddygol;
- Cyfuno sgiliau dylunio clinigol ac ymchwil â phrofiad o beirianeg dechnegol i reoli'r llwybr arloesi cyfan, o angen cynnar nas diwallwyd, dylunio cysyniad, prototeipio, a phrofi clinigol hyd at werthuso gwasanaethau sefydledig gan ddefnyddio dull gofal iechyd sy'n seiliedig ar werth;
- Cyflwyno a phrofi cynhyrchion mwy sefydledig a thechnolegau meddygol arloesol i systemau clinigol go iawn;
- Darparu cyngor rheoleiddiol a llwybr i gynllunio'r farchnad.

**Edrychwch ar ein gwefan neu cysylltwch â ni i gael gwybod mwy heddiw: <https://tritech.gig.cymru>**

**Here at TriTech Institute, we support the development of healthcare solutions on a local, national, and global level offering designers and manufacturers a single point of access to the NHS through a collaborative and agile approach.**

We work together, as part of Hywel Dda University Health Board, to:

- Support evaluations and clinical investigations of innovative medical technologies, leading to improved patient care;
- Provide a single point of access to clinical services for medical technology designers and manufacturers;
- Combine clinical and research design skills with technical engineering experience to manage the whole innovation pathway, from early unmet need, concept design, prototyping, and clinical testing through to established service evaluations using a Value-Based healthcare approach;
- Introduce and test more established products and innovative medical technologies into real clinical systems;
- Provide regulatory advice and route to market planning.

**Take a look at our website or get in touch to find out more today: <https://tritech.nhs.wales>**



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Bwrdd Iechyd Prifysgol  
Hywel Dda  
University Health Board



## Croeso

Croeso cynnes iawn i drydydd symposiwm ATiC, sef CATALYDDU 2023: Cyd-greu Dyfodol Technoleg Iechyd. Mae'n bleser gan ATiC bartneru â Bwrdd Iechyd Prifysgol Hywel Dda a'i Sefydliad TriTech ar gyfer y symposiwm hwn.

Mae'r bartneriaeth hon yn un enghraifft wych o'r ffordd y mae rhaglen Cyflymu, Hwb Gwyddorau Bywyd Cymru wedi creu cyfleoedd a phartneriaethau cydweithredol newydd o fewn sectorau a sefydliadau yng Nghymru, gan greu etifeddiaeth barhaus. Sefydlwyd y rhaglen yn 2018 gyda £24m o gyllid gan Lywodraeth Cymru a ddaeth o Gronfa Datblygu Rhanbarthol Ewrop.

Bydd y digwyddiad CATALYDDU blynyddol hwn yn arddangos yr ymchwil a'r arloesi ar y cyd sy'n digwydd o fewn technoleg iechyd, trwy gyfrwng partneriaethau rhwng y byd academiaidd, diwydiant a GIG Cymru.

Drwy gydol y dydd byddwn yn clywed gan ein siaradwyr gwadd, gan gynnwys cydweithwyr rhyngwladol. Byddant yn dangos sut y mae Cymru yn llwyddo i gyflymu arloesedd ar sail y partneriaethau hyn, ac yn ei dro sut y mae hyn yn grymuso cleifion ar sail gwaith ymchwil, datblygu ac arloesi mewn technoleg iechyd.

Diolch yn ddiffuant i chi am fynychu a chyfrannu at CATALYDDU 2023, ac edrychwn ymlaen at yr hyn sy'n argoeli i fod yn ddigwyddiad cyffrous arall a fydd yn ysgogi'r meddwl.

## Welcome

A very warm welcome to the third ATiC symposium, CATALYSE 2023: Co-creating the Future of Health Technology. ATiC is delighted to partner with Hywel Dda University Health Board and its TriTech Institute for this symposium.

This partnership is just one excellent example of how the Life Sciences Hub Wales led Accelerate programme, established in 2018 with £24m of funding from Welsh Government through the European Regional Development Fund (ERDF), generated new collaborative opportunities and partnerships across sectors and institutions in Wales, creating a lasting legacy.

This annual CATALYSE event will showcase collaborative research and innovation in health technology through partnerships between academia, industry, and NHS Wales.

Throughout the day we will hear from our invited speakers, including international collaborators. They will showcase how Wales is successfully accelerating innovation through these partnerships, and in turn how this is empowering patients through research, development, and innovation in health technology.

We sincerely thank you for all attending and contributing to CATALYSE 2023, and we look forward to what promises to be another exciting and thought-provoking event.



## Mynediad Wi-Fi Gwestai PCYDDS am ddim:

Rhwydwaith diwifr Gwesteion Y Drindod Dewi Sant yw'r prif rwydwaith diwifr ar gyfer Gwesteion Y Drindod Dewi Sant. I gysylltu, dilynwch y cyfarwyddiadau hyn:

- Ar eich dyfais o dan rwydwaith diwifr, dewiswch "UWTSD Guest" (nid oes angen unrhyw allwedd diogelwch).
- Unwaith y byddwch wedi eich cysylltu, cewch eich ailgyfeirio at dudalen cofrestru a gofynnir i chi roi eich Enw, Cyfeiriad e-bost a'ch Rheswm dros fynediad.
- Unwaith y byddwch wedi llenwi'r manylion hyn a derbyn y telerau defnydd, bydd modd i chi gael mynediad i'r rhyngwyd.

## Free UWTSD Guest Wi-Fi access:

UWTSD Guest wireless network is the primary wireless network for Guests of UWTSD. To connect, please follow these instructions:

- On your device under wireless network select "UWTSD Guest" (there is no security key required).
- Once connected, you will be re-directed to a registration page and prompted to input your Name, Email address, and Reason for access.
- Once these details have been completed and the terms of use have been accepted, you will be able to access the internet.



## Hashtag cyfryngau cymdeithasol y Symposium:

#CATALYDDU2023

Cofiwch ein tagio yn eich postiau!  
@ATiCUWTSD  
@BIHywelDda  
@TRITECH\_HD

## Symposium social media hashtag:

#CATALYSE2023

Please remember to tag us in your posts!  
@ATiCUWTSD  
@HywelDdaHB  
@TRITECH\_HD

Mae ATiC yn cydweithio â phartneriaid academiaidd, cyhoeddus, preifat a'r trydydd sector o'r meysydd canlynol y sectorau gwyddorau bywyd, iechyd a gofal cymdeithasol i ysgogi diwylliant o ragoriaeth ymchwil, trosglwyddo gwybodaeth, ac arloesedd ym maes iechyd a lles.

Mae ATiC yn cyfuno dulliau ymchwil dylunio sy'n canolbwyntio ar y defnyddiwr ac offer mesur ffisiolegol gwrthrychol i ddeall anghenion a pherfformiad pobl wrth ryngweithio â chynhyrchion, gwasanaethau, systemau a lleoedd gofal iechyd corfforol a digidol.

Rydym yn defnyddio'r canfyddiadau hyn i helpu ein partneriaid i ddatblygu atebion arloesol newydd ar gyfer iechyd a lles, sy'n trawsnewid bywydau yn ein cymunedau. Mae ATiC yn gyfrannwr unigryw ac allweddol i'r ecosystem arloesi iechyd yng Nghymru a thu hwnt, gan arwain at gyflawni effaith economaidd gadarnhaol trwy arferion cyd-ddylunio.

ATiC collaborates with academic, public, private and third sector partners from the life sciences, health, and social care sectors to drive a culture of research excellence, knowledge transfer, and innovation in health and wellbeing.

ATiC combines user-centred design research methods and objective physiological measurement tools to understand people's needs and performance during their interaction with physical and digital healthcare products, services, systems, and spaces.

We use these insights to help our partners develop innovative new solutions for health and wellbeing, which transform lives in our communities. ATiC is a unique and key contributor to the health innovation ecosystem in Wales and beyond, driving the delivery of positive economic impact through co-design practices.



## Sut gallwn ni weithio gyda chi?

Gallwn ni gydweithio â phartneriaid academiaidd, diwydiant, iechyd a gofal cymdeithasol ar brosiectau ymchwil ac arloesi a ariennir drwy law UKRI, Llywodraeth Cymru neu ffynonellau eraill, yn ogystal â gwneud gwaith masnachol yn uniongyrchol gyda busnesau a diwydiant.

Cysylltwch â ni:

atic@uwtsd.ac.uk  
01792 481232  
www.uwtsd.ac.uk/cy/atic

## How can we work with you?

We can collaborate with academic, industry, health and social care partners on research and innovation projects funded through UKRI, Welsh Government or other sources, as well as undertaking commercial work directly with businesses and industry.

Contact us:

atic@uwtsd.ac.uk  
01792 481232  
www.uwtsd.ac.uk/atic



## Rhaglen y Symposiwm

**Cyrraedd/Cofrestru**  
8:30am - 9:00am

Cofrestru, a lluniaeth ar gael yn Neuadd Vivian.

## Symposium Programme

**Arrival/Registration**  
8:30am - 9:00am

Registration, and refreshments available in the Vivian Hall.

**Croeso**  
9:00am – 9:05am

**Yr Athro Ian Walsh**, Profost Abertawe a Chaerdydd, a Chyfarwyddwr ATiC, PCYDDS.

9:05am – 9:15am

**Yr Athro Elwen Evans, KC**, Is-Ganghellor Prifysgol Cymru a Phrifysgol Cymru y Drindod Dewi Sant. (PCYDDS).

9:15am – 9:25am

**Professor Phil Kloer**, Cyfarwyddwr Meddygol Gweithredol a Dirprwy Brif Swyddog Gweithredol, Bwrdd Iechyd Prifysgol Hywel Dda.

**Prif Anerchiad**  
9:25am – 9:45am

**Dr Rob Orford**, Prif Ymgynghorydd Gwyddonol dros Iechyd (CSA-H) i Lywodraeth Cymru.

**Welcome**  
9:00am – 9:05am

**Professor Ian Walsh**, Provost Swansea and Cardiff, and ATiC Director, UWTSD.

9:05am – 9:15am

**Professor Elwen Evans, KC**, Vice-Chancellor of the University of Wales and the University of Wales Trinity Saint David (UWTSD).

9:15am – 9:25am

**Professor Phil Kloer**, Executive Medical Director and Deputy Chief Executive Officer, Hywel Dda University Health Board.

**Keynote Address**  
9:25am – 9:45am

**Dr Rob Orford**, Chief Scientific Adviser for Health (CSA-H) for Welsh Government.

**Sesiwn 1**  
9:45am – 10:05am

**Cyd-greu a Phartneriaethau**

**Yr Athro Chris Hopkins**, Pennaeth Arloesedd a Sefydliad TriTech, Bwrdd Iechyd Prifysgol Hywel Dda; Cyfarwyddwr Cynorthwyol, Proffesiynau Perthynol i Iechyd a Gwyddor Iechyd, Bwrdd Iechyd Prifysgol Betsi Cadwaladr; Cyfarwyddwr Clinigol ATiC, PCYDDS.

10:05am – 10:25am

**John Carrington**  
Prif Swyddog Gweithredol, NGPod Global Ltd.

10:25am – 10:45am

**Annamarie Saarinen**, Prif Swyddog Gweithredol a Chyd-sylfaenydd, Bloom Standard Inc.

10:45am – 11:00am

**ATiC a Gwasanaethau Peirianeg Adsefydlu GIG Cymru**  
Cyd-greu Rhwydwaith WIRE.

**Session 1**  
9:45am – 10:05am

**Co-creation and Partnerships**

**Professor Chris Hopkins**, Head of the TriTech Institute and Innovation, Hywel Dda University Health Board; Assistant Director AHP's and Health Science, Betsi Cadwaladr University Health Board; Clinical Director of ATiC, UWTSD.

10:05am – 10:25am

**John Carrington**  
Chief Executive Officer, NGPod Global Ltd.

10:25am – 10:45am

**Annamarie Saarinen**, Chief Executive Officer and Co-founder, Bloom Standard Inc.

10:45am – 11:00am

**ATiC and NHS Wales Rehabilitation Engineering Services**  
Co-creating the WIRE Network.

**Egwyl y bore**  
11:00am – 11:30am

**Lluniaeth**

**Morning break**  
11:00am – 11:30am

**Refreshments**

**Sesiwn 2**  
11:30am – 11:40am

**Technoleg Drochi**

**Delyth James**, Arweinydd Rhaglen, Ecosystem Iechyd Digidol Cymru, Hwb Gwyddorau Bywyd Cymru.

11:40am – 11:55am

**Dr Huw Lloyd Williams**, Cyfarwyddwr Rhaglen (EPIC iBSc) / Uwch Ddarlithydd Clinigol, Ysgol Meddygaeth, Prifysgol Caerdydd.

11:55am – 12:10pm

**Simon Enoch**, Cyfarwyddwr Partneriaeth, Rescape Innovation Ltd.

12:10pm – 12:20pm

**Robin Davies**, Prif Swyddog Technoleg, Virtus Tech.

12:20pm – 12:35pm

**Dr Michal Tombs**, Darllenydd mewn Addysg Feddygol, Prifysgol Caerdydd.

12:35pm – 12:55pm

**C&A**

**Session 2**  
11:30am – 11:40am

**Immersive Technology**

**Delyth James**, Programme Lead, Digital Health Ecosystem Wales, Life Sciences Hub Wales.

11:40pm – 11:55am

**Dr Huw Lloyd Williams**, Programme Director (EPIC iBSc) / Senior Clinical Lecturer, School of Medicine, Cardiff University.

11:55am – 12:10pm

**Simon Enoch**, Partnership Director, Rescape Innovation Ltd.

12:10pm – 12:20pm

**Robin Davies**, Chief Technology Officer, Virtus Tech.

12:20pm – 12:35pm

**Dr Michal Tombs**, Reader in Medical Education, Cardiff University.

12:35pm – 12:55pm

**Q&A**

**Egwyl cinio**  
1:00pm – 2:00pm

Bydd cinio bwffe yn cael ei weini yn y Neuadd Vivian.

**Lunch break**  
1:00pm – 2:00pm

A buffet lunch will be served in the Vivian Hall.

**Sesiwn 3**

**Technoleg Feddygol**

**Session 3**

**Medical Technology**

2:00pm – 2:40pm

**Georgia Gay**, Swyddog Datblygu Busnes, Cyberdyne Inc.

2:00pm – 2:40pm

**Georgia Gay**, Business Development Officer, Cyberdyne Inc.

2:40pm – 3:00pm

**Professor Peter Cnudde**, Llawfeddyg Trawma ac Orthopedig Ymgynghorol, Bwrdd Iechyd Prifysgol Hywel Dda.

2:40pm – 3:00pm

**Professor Peter Cnudde**, Consultant Orthopaedic Surgeon, Hywel Dda University Health Board.

3:00pm – 3:20pm

**Dr Daniel Harris**, Fferyllydd Arweiniol ar gyfer Gwasanaethau Cardiaidd, Bwrdd Iechyd Prifysgol Hywel Dda.

3:00pm – 3:20pm

**Dr Daniel Harris**, Lead Pharmacist for Cardiac Services, Hywel Dda University Health Board.

3:20pm – 3:40pm

**Professor Keir Lewis**, Cyfarwyddwr Meddygol, Arloesedd Anadlol Cymru; Arweinydd Clinigol Meddygaeth Anadlol a Sefydliad TriTech, Bwrdd Iechyd Prifysgol Hywel Dda.

3:20pm – 3:40pm

**Professor Keir Lewis**, Medical Director, Respiratory Innovation Wales; Clinical Lead for Respiratory Medicine and the TriTech Institute, Hywel Dda University Health Board.

**Egwyl y prynhawn**  
3:40pm – 4:00pm

**Lluniaeth**

**Afternoon break**  
3:40pm – 4:00pm

**Refreshments**

**Session 4**

**Technoleg Ddigidol a Data Mawr**  
(Hackathon IGDC)

**Session 4**

**Digital Technology and Big Data**  
(DHCW Hackathon)

4:00pm – 4:10pm

**Rachel Gemine**, Pennaeth Ymchwil ac Arloesi, Iechyd a Gofal Digidol Cymru.

4:00pm – 4:10pm

**Rachel Gemine**, Head of Research and Innovation, Digital Health and Care Wales.

4:10pm – 4:25pm

**Gareth John**, Pennaeth Cyflenwi Gwybodaeth, Iechyd a Gofal Digidol Cymru

4:10pm – 4:25pm

**Gareth John**, Head of Information Delivery, Digital Health and Care Wales

4:25pm – 4:40pm

**Jennifer Selby**, Uwch Arbenigwr Cynnyrch, Iechyd Digidol a Gofal Cymru.

4:25pm – 4:40pm

**Jennifer Selby**, Senior Product Specialist, Digital Health and Care Wales.

4:40pm – 4:50pm

Trafodaethau ynghylch galwad gychwynnol i weithredu.

4:40pm – 4:50pm

Discussions around initial call to action.

4:50pm – 4:55pm

Talgrynnu / Galwad i Weithredu / Manylion Hackathon.

4:50pm – 4:55pm

Round Up / Call to Action / Hackathon Details.

**Sylwadau cloi**  
4:55pm

**Professor Ian Walsh**, Profost Abertawe a Chaerdydd, a Chyfarwyddwr ATiC, PCYDDS.

**Closing remarks**  
4:55pm

**Professor Ian Walsh**, Provost Swansea and Cardiff, and ATiC Director, UWTSD.

# CATALYDDDU 2023

## CATALYSE

Cyd-greu Dyfodol Technoleg Iechyd  
Co-creating the Future of Health Technology

## Proffiliau Siaradwyr



### Yr Athro Ian Walsh

Profost Abertawe a Chaerdydd, a Chyfarwyddwr ATiC, PCYDDS.

Ar hyn o bryd, yr Athro Ian Walsh yw Profost Campysau Abertawe a Chaerdydd y Drindod Dewi Sant.

Enillodd Ian ei radd gyntaf mewn Dylunio 3D ym Mhrifysgol Cymru, Casnewydd yn 1988 a'i PhD o Brifysgol Cymru, Abertawe yn 2008.

Mae ganddo dros 25 mlynedd o brofiad fel dylunydd, academydd ac ymchwilydd ac mae'n Gymrawd Cymdeithas Frenhinol y Celfyddydau.

### Yr Athro Elwen Evans, KC,

Is-Ganghellor Prifysgol Cymru a Phrifysgol Cymru y Drindod Dewi Sant.

Astudiodd yr Athro Evans y Gyfraith yng Ngholeg Girton, Caergrawnt, gan raddio â gradd dosbarth cyntaf ddwbl: M.A. (Cantab). Ar ôl graddio aeth ymlaen i Ysgol y Gyfraith Ysbytai'r Frawdlys ac fe'i galwyd i'r Bar gan Gray's Inn yn 1980. Fe'i penodwyd yn Gwnsler y Frenhines yn 2002.

Mae'r Athro Evans wedi mwynhau gyrfa lwyddiannus iawn yn fargyfreithiwr gan ddewis ymarfer yng Nghymru yn bennaf. Mae wedi ymgymryd ag amrywiaeth eang o waith cyfreithiol, ac wedi arbenigo mewn cyfraith trosedd ar lefelau treial ac apeliadau. Mae hi'n Gofiadur Llys y Goron ers cael ei phenodi yn 2001. Bu'n Bennaeth Iscoed Chambers am dros 15 mlynedd cyn ei phenodi i rôl Pennaeth Coleg y Gyfraith a Throseddeg ym Mhrifysgol Abertawe yn 2015 lle sefydlodd Ysgol y Gyfraith Hillary Rodham Clinton. Yn 2020, fe'i penodwyd yn Ddirprwy Is-Ganghellor a Deon Gweithredol ar gyfer Cyfadran y Dyniaethau a'r Gwyddorau Cymdeithasol a bu'n gyfrifol am arwain twf llwyddiannus y Gyfadran yn ystod y cyfnod hwn.

Gyda'r Gymraeg yn iaith gyntaf iddi, mae hi'n Feinciwr yn ei Hysbyty, fe'i hanrhydeddwyd gan Orsedd y Beirdd am ei gwasanaethau i'r Gyfraith yng Nghymru a bu'n Gomisiynydd y Comisiwn ar Gyfiawnder yng Nghymru. Mae hi wedi gwasanaethu ar amrywiaeth eang o gyrff a phwyllgorau allanol, gan adlewyrchu ei meysydd profiad a diddordeb proffesiynol. Yn 2018, roedd ymhlith y 10 uchaf ar restr yn dathlu 100 o fenywod mwyaf ysbrydoledig Cymru.

### Yr Athro Phil Kloer

Cyfarwyddwr Meddygol Gweithredol a Dirprwy Brif Swyddog Gweithredol, Bwrdd Iechyd Prifysgol Hywel Dda.

Mae Phil Kloer yn arweinydd gwasanaeth iechyd profiadol gyda mwy na 10 mlynedd o brofiad ar lefel Bwrdd mewn sefydliad system iechyd mawr. Ar hyn o bryd, mae'n gweithio fel Dirprwy Brif Swyddog Gweithredol a Chyfarwyddwr Meddygol Gweithredol, Bwrdd Iechyd Prifysgol Hywel Dda.

Mae ei ddidordebau proffesiynol yn cynnwys datblygu'r gallu i arwain, gwella ansawdd a gwerth gwasanaethau gofal iechyd, a hyrwyddo symudiad at fodel iechyd a lles sy'n fwy cymdeithasol.

Hyfforddodd fel meddyg anadlol a bu'n gweithio yn Seland Newydd, Lloegr a Chymru. Mae'n Ymddiriedolwr ar gyfer y Gyfadran Arweinyddiaeth a Rheolaeth Feddygol (FMLM) ac mae'n Athro Anrhydeddus ym Mhrifysgol Abertawe.

## Speaker Profiles

### Professor Ian Walsh

Provost of UWTSW Swansea and Cardiff, and ATiC Director

Professor Ian Walsh is currently Provost of UWTSW Swansea and Cardiff Campuses, and ATiC Director.

He obtained his first degree in 3D Design from the University of Wales, Newport in 1988 and his PhD from the University of Wales, Swansea in 2008.

Ian has more than 25 years' experience as a designer, academic, and researcher and is a Fellow of the Royal Society of Arts.

### Professor Elwen Evans, KC,

Vice-Chancellor of the University of Wales and the University of Wales Trinity Saint David (UWTSW).

Professor Evans read Law at Girton College, Cambridge, graduating with a double first: M.A. (Cantab). On graduating she attended the Inns of Court School of Law and was called to the Bar by Gray's Inn in 1980. She was appointed Queen's Counsel in 2002.

Professor Evans has enjoyed a very successful career as a barrister, choosing to practice mainly in Wales. She has undertaken a wide range of legal work, specialising in criminal law at trial and appellate levels. She sits as a Crown Court Recorder having been appointed in 2001. She was Head of Iscoed Chambers for over 15 years prior to her appointment as Head of the College of Law & Criminology at Swansea University in 2015 where she was responsible for establishing the Hillary Rodham Clinton School of Law. In 2020, she was appointed Pro-Vice-Chancellor and Executive Dean of the Faculty of Humanities and Social Sciences and is credited with having led the successful growth of the Faculty during this period.

A native Welsh speaker, she is a Bencher of her Inn, has been honoured by Gorsedd y Beirdd for her services to Law in Wales and was a Commissioner on the Commission on Justice in Wales. She has served on a wide range of external bodies and committees reflecting her areas of professional experience and interest. In 2018, she was included in the top 10 of a list celebrating 100 of Wales' most inspirational women.

### Professor Phil Kloer

Executive Medical Director and Deputy CEO, Hywel Dda University Health Board.

Phil Kloer is an experienced health service leader with more than 10 years' experience at Board level in a large health system organisation, currently working as Executive Medical Director and Deputy CEO at Hywel Dda University Health Board.

His professional interests include developing leadership capability, improving healthcare service quality and value, and promoting a move to a more social model of health and well-being.

He trained as a respiratory physician and worked in New Zealand, England, and Wales. He is a Trustee for the Faculty of Medical Leadership and Management (FMLM) and is an honorary professor at Swansea University.





**Dr Rob Orford**

Prif Ymgynghorydd Gwyddonol dros Iechyd (CSA-H) i Lywodraeth Cymru.

Mae Dr Rob Orford yn arweinydd proffesiynol ar gyfer gwyddonwyr gofal iechyd yn GIG Cymru ac mae'n darparu cyngor arbenigol ynghylch iechyd technegol a gwyddonol.

Mae ganddo gefndir fel gwyddonydd labordy yn gweithio ym meysydd bioleg ddatblygiadol ac oncoleg foleciwlaidd, o fod yn Gymrawd Ôl-ddoethurol (CRUK) i Wyddonydd Ymchwilio (MRC). Mae Rob wedi gweithio i'r Asiantaeth Diogelu Iechyd ar lefel genedlaethol a rhyngwladol ym maes asesu risg cyflym ar gyfer bygythiadau iechyd sy'n dod i'r amlwg, a hefyd i Iechyd Cyhoeddus Lloegr fel Prif Wyddonydd ac Arweinydd Grŵp.

Mae Rob yn aelod o SAGE ar gyfer COVID-19 ac ar ddechrau COVID-19, sefydlodd Grŵp Cynghori Technegol Llywodraeth Cymru (TAG), gan gadeirio'r grŵp ar y cyd. Roedd hwn yn grŵp tebyg i SAGE ar gyfer Cymru. Mae hefyd yn aelod o'r Bwrdd Genomeg Cenedlaethol ac yn Llysgennad STEMNET.

**Dr Rob Orford**

Chief Scientific Adviser for Health (CSA-H) for Welsh Government.

Dr Rob Orford's remit covers professional leadership of healthcare scientists in NHS Wales and the provision of specialist technical and scientific health advice.

His background is as a laboratory scientist working across developmental biology and molecular oncology from Post-doctoral Fellow (CRUK) through to Investigator Scientist (MRC). Rob has worked at a national and international level in rapid risk assessment for emerging health threats for the Health Protection Agency and Public Health England as Principal Scientist and Group Leader.

At the start of COVID-19, Rob set-up and co-chaired the Welsh Government Technical Advisory Group (TAG), a SAGE-like group for Wales as is a member for COVID-19 SAGE. He is a member of the National Genomics Board and a STEMNET Ambassador.

**Yr Athro Chris Hopkins FAHCS FIPEM CEng**

Pennaeth Arloesedd a Sefydliad TriTech, Bwrdd Iechyd Prifysgol Hywel Dda; Cyfarwyddwr Cynorthwyol, Proffesiynau Perthynol i Iechyd a Gwyddor Iechyd, Bwrdd Iechyd Prifysgol Betsi Cadwaladr; Cyfarwyddwr Clinigol ATIC, PCYDDS; Athro Anrhydeddus yn Athrofa Gwyddoniaeth a Chelf Cymru; Gwyddonydd Clinigol Ymgynghorol.

Mae Chris Hopkins yn Gymrawd yr Academi Gwyddor Gofal Iechyd, yn Gymrawd y Sefydliad Ffiseg a Pheirianneg mewn Meddygaeth, ac yn Beiriannydd Siartredig gyda'r Sefydliad Peirianneg a Thechnoleg. Gan weithio gyda phrifysgolion lleol a chwmnïau MedTech, mae ganddo fwy na 27 mlynedd o brofiad yn y GIG. Mae ei ddiddordeb ymchwil mewn deallusrwydd artifisial a dysgu peirianyddol, gyda ffocws arbennig ar systemau gofal iechyd ac mae ar hyn o bryd yn goruchwylio sawl prosiect PhD.

Dyfarnwyd Gwobr Rhagoriaeth mewn Ymchwil ac Arloesedd Gwyddor Gofal Iechyd i Chris yng Ngwobrau Rhagoriaeth Prif Swyddog Gwyddonol GIG Lloegr mewn Gwyddor Gofal Iechyd ym 2022.

**Professor Chris Hopkins FAHCS FIPEM CEng**

Head of the TriTech Institute and Innovation, Hywel Dda University Health Board; Assistant Director AHP's and Health Science, Betsi Cadwaladr University Health Board; Clinical Director of ATiC, UWTS; Honorary professor at the Wales Institute of Science and Art; Consultant Clinical Scientist.

Chris Hopkins is a Fellow of the Academy for Healthcare Science, a Fellow of the Institute of Physics and Engineering in Medicine, and a Chartered Engineer with the Institute of Engineering and Technology. Working with local universities and MedTech companies, he has more than 27 years' experience in the NHS. His research interest is in artificial intelligence and machine learning, with a particular focus on healthcare systems and is currently supervising several PhD projects.

Chris was awarded the Excellence in Healthcare Science Research and Innovation Award at the NHS England Chief Scientific Officer's Excellence in Healthcare Science Awards 2022.

**John Carrington**

Prif Swyddog Gweithredol, NGPod Global Ltd.

Dechreuais fy musnes cyntaf pan oeddwn yn 23, ac rwyf bob amser wedi bod yn entrepreneuriaidd ac yn benderfynol o gael dilyn fy llwybr fy hun. O ddiwedd y 90au, bŵm mewn sawl rôl ar lefel bwrdd mewn busnesau gweithgynhyrchu, gan ddod yn Brif Swyddog Gweithredol Grŵp mewn sefydliad rhyngwladol yn y diwydiant nwyddau ymolchi a cholur.

Yn 2012 darganfyddais fy mhwrpas gwirioneddol pan ymunais â Diwydiant MedTech fel Prif Swyddog Gweithredol busnes dosbarthu pwmp trwyth, a arweiniodd fi at fy rôl bresennol. Rydym yn canolbwyntio'n llwyr ar y claf ac yn angerddol ynghylch sicrhau deilliannau cadarnhaol a gwell diogelwch. Dyma'r ffordd mwyaf gwerth chweil o dreulio fy amser, y gallaf feddwl amdani.

**John Carrington**

Chief Executive Officer, NGPod Global Ltd.

I started my first business when I was 23, and have always been entrepreneurial, determined to forge my own path. From the late 90's I held several board-level roles in manufacturing businesses, culminating as the Group CEO of a multi-national organisation in the toiletries and cosmetics industry.

In 2012 I found my real purpose when I joined the MedTech Industry as CEO of an infusion pump distribution business, which lead me to my current role. We are totally patient-focused, passionate about delivering positive outcomes and improved safety, which is the most rewarding way I can think of spending my time.



### **Annamarie Saarinen**

Prif Swyddog Gweithredol a Chyd-sylfaenydd, Bloom Standard Inc.

Yn economegydd iechyd, yn Gymrawd Polisi Humphrey, ac yn fam i faban a gafodd ddiagnosis yn dri diwrnod oed â namau critigol ar y galon, mae Annamarie wedi treulio'r rhan orau o'r degawd diwethaf yn dyrchafu canfod cynnar, telefeddygaeth, a gofal cysylltiedig ar gyfer y rhai mwyaf anghysbell, nas gwasanaethir yn ddigonol, a babanod a phlant sy'n feddygol fregus.

Mae Annamarie wedi cael ei chydnabod am arwain ymdrech yr Unol Daleithiau i ddod y genedl gyntaf i weithredu sgrinio babanod newydd-anedig cyffredinol ar gyfer namau ar y galon – y nam geni mwyaf cyffredin a marwol.

Penodwyd Annamarie gan Ysgrifennydd Iechyd a Gwasanaethau Dynol yr Unol Daleithiau o dan Weinyddiaeth Obama i'r Pwyllgor Cyngori ffederal ar Anhwylderau Heritable mewn Babanod Newydd a Phlant (ACHDNC). Mae Annamarie yn gwasanaethu ar Glymblaid Every Breath Counts, gweithgor Cyfres Dechnegol Dyfeisiau Meddygol WHO, Rhwydwaith Ymchwil MNCAH WHO ar COVID-19 mewn Plant, bwrdd y Consortiwm Arloesedd Dyfeisiau Pediatrig, ac mae'n gyd-gadeirydd Cydweithredfa Ymchwil Sefydliad Newydd-anedig.

### **Dr Sean Jenkins**

Athro Cyswllt mewn Dylunio Diwydiannol a Chyfarwyddwr Ymchwil ATiC, PCYDDS.

Roedd PhD Sean, sef 'Mesur Profiad Defnyddwyr yn Thermograffig yn ystod Rhyngweithio rhwng Pobl a Chynnyrch' yn cynnwys defnyddio methodoleg o dri chyfeiriad, sef mesurau arbrolfol ffisiolegol, gwybyddol a goddrychol o brofiadau defnyddwyr yn ystod y rhyngweithio rhwng cynnyrch.

Erbyn hyn, mae Sean yn arwain y gweithgaredd ymchwil ac arloesi yn ATiC ac mae ei ddi-ddordebau ymchwil wedi ymestyn i ymgorffori dulliau ymchwil ymddygiadol ynghyd â meddwl ac arferion dylunio, er mwyn dod i ddeall sut mae pobl yn rhyngweithio â chynhyrchion, gwasanaethau, systemau a gofodau gofal iechyd.

Mae Sean yn Thermograffydd Isgoch Ardystiedig ac yn Gymrawd Cymdeithas Frenhinol y Celfyddydau.

### **Billy Woods**

Gwyddonydd Clinigol, Sefydliad TriTech, Bwrdd Iechyd Prifysgol Hywel Dda ac Uwch Gymrawd Arloesi, ATiC, PCYDDS.

Mae Billy Woods yn Wyddonydd Clinigol yn Sefydliad TriTech, Bwrdd Iechyd Prifysgol Hywel Dda. Hyfforddodd mewn peirianneg adsefydlu ar Raglen Hyfforddi Gwyddonwyr Clinigol y GIG, gan weithio'n agos gyda chleifion mewn meysydd megis ymddaliad y corff a symudedd, technoleg gynorthwyol, dadansoddi cerddediad clinigol, a datblygu dyfeisiau meddygol.

Mae Billy hefyd ar secondiad yn ATiC, PCYDDS, fel Uwch Gymrawd Arloesi.

Yn fwy diweddar, daeth yn hyfforddai ar gynllun Hyfforddi-ant Gwyddonwyr Arbenigol Uwch (HGAU) yr Ysgol Genedlaethol Gwyddor Gofal Iechyd.

### **Annamarie Saarinen**

Chief Executive Officer and Co-founder, Bloom Standard Inc.

A health economist, Humphrey Policy Fellow, and mother of a baby diagnosed at three days old with critical heart defects, Annamarie has spent the better part of the last decade elevating early detection, telemedicine, and connected care for the most remote, underserved, and medically fragile babies and children.

Annamarie has been recognised for spearheading the US effort to become the first nation to implement universal newborn screening for heart defects – the most common and deadly birth defect.

Annamarie was appointed by the US Secretary of Health and Human Services under the Obama Administration to the federal Advisory Committee on Heritable Disorders in Newborns and Children (ACHDNC). Annamarie serves on the Every Breath Counts Coalition, the WHO Medical Device Technical Series workgroup, the WHO MNCAH Research Network on COVID-19 in Children, the board of the Pediatric Device Innovation Consortium, and is co-chair of the Newborn Foundation Research Collaborative.

### **Dr Sean Jenkins**

Associate Professor of Industrial Design and ATiC Research Director, UWTSU.

Sean's PhD, "Thermographic Measurement of User Experience during Human-Product Interaction" employed methodological triangulation between physiological, cognitive and subjective experimental measures of user's experiences during product interaction.

Now leading the research and innovation activity at ATiC, Sean's research interests have extended to incorporate behavioural research methods allied with design thinking and praxis to capture and understand people's interaction with health care products, services, systems and spaces.

Sean is a Certified Infrared Thermographer and a Fellow of the Royal Society of the Arts.

### **Billy Woods**

Clinical Scientist, TriTech Institute, Hywel Dda University Health Board and Senior Innovation Fellow, ATiC, UWTSU.

Billy Woods is a Clinical Scientist at the TriTech Institute, Hywel Dda University Health Board. He trained in rehabilitation engineering on the NHS Clinical Scientist Training Programme, working closely with patients in areas such as posture and mobility, assistive technology, clinical gait analysis, and medical device development.

Billy is also on secondment at ATiC, UWTSU, as a Senior Innovation Fellow.

More recently, he has become a trainee on the National School of Healthcare Science's Higher Specialist Scientist Training (HSST) scheme.





### Delyth James

Arweinydd Rhaglen, Ecosystem Iechyd Digidol Cymru, Hwb Gwyddorau Bywyd Cymru.

Delyth James sy'n arwain Ecosystem Iechyd Digidol Cymru, sef rhaglen sy'n dod â diwydiant, clinigwyr, llunwyr polisi, academyddion, arloeswyr, a chyllidwyr ynghyd ledled gwasanaeth iechyd a gofal cymdeithasol digidol Cymru.

Dechreuodd Delyth ei gyrfa ym maes gwybodeg gofal iechyd o fewn y GIG yng Nghymru. Yna treuliodd 20 mlynedd yn y trydydd sector yn perffeithio ei sgiliau wrth reoli gwasanaethau a chontractau cymhleth, gan gynnwys un rhaglen lle bu'n cyflwyno gwasanaethau cynghori Cyngor ar Bopeth (CAB) i leoliadau Gofal Iechyd Sylfaenol ledled Cymru.

Bellach, lleolir Delyth yn Hwb Gwyddorau Bywyd Cymru, ac mae ganddi angerdd ynghylch cysylltu rhai sy'n annhebyg i'w gilydd ac awydd i gydweithio ag ymchwilwyr ac addysgwyr a all yrru iechyd a gofal cymdeithasol digidol yn ei flaen.

### Delyth James

Programme Lead, Digital Health Ecosystem Wales, Life Sciences Hub Wales.

Delyth James leads the Digital Health Ecosystem Wales, a programme bringing industry, clinicians, policymakers, academics, innovators, and funders together across Wales's digital health and social care.

Delyth's career started in healthcare informatics within the NHS in Wales. She then spent 20 years in the third sector perfecting her skills in managing complex services and contracts, including one programme that introduced CAB advice services into Primary Health Care settings across Wales.

Now at the Life Sciences Hub Wales, Delyth's passion extends to connecting diverse players and is eager to collaborate with researchers and educators who can drive digital health and social care forward.



### Dr Huw Lloyd Williams

Cyfarwyddwr Rhaglen, Canolfan Academaidd Meddygaeth Frys, Prifysgol Caerdydd; Ymgynghorydd Meddygaeth Frys, Adran Frys y Tywysog Siarl, Bwrdd Iechyd Prifysgol Cwm Taf Morgannwg.

Sefydlodd Dr Williams y radd BSc (EPIC iBSc) ryngosodol mewn 'Gofal Brys, Cyn Mynd i'r Ysbyty ac Ar Unwaith' (EPIC iBSc), a gymeradwywyd gan Brifysgol Caerdydd yn 2016 ac a ariannwyd gan Lywodraeth Cymru ers 2018. Bu Dr Williams yn gyfarwyddwr ar y rhaglen hon ers 2018 ac yn ddiweddarach yn y flwyddyn honno daeth yn Arweinydd Modiwl Blwyddyn 3 o'r enw 'Hospital Front Door' ar gyfer y rhaglen MBBCh israddedig ym Mhrifysgol Caerdydd.

Daeth yn Gymrawd Addysg Uwch (FHEA) yn 2019 ac mae bellach yn rhedeg y Ganolfan Academaidd Meddygaeth Frys (EMAC) ym Mhrifysgol Caerdydd. Mae ei brosiectau arloesi presennol yn cynnwys datblygu llwyfan e-ddysgu rhithwir newydd (wedi'i ariannu gan yr UE a Llywodraeth Cymru) a sefydlu labordy arloesi rhithwir yn Ysbyty Athrofaol Cymru, ar y cyd gyda chydweithwyr o Fwrdd Iechyd Prifysgol Caerdydd a'r Fro (wedi'i ariannu gan Lywodraeth Cymru).

### Dr Huw Lloyd Williams

Programme Director, Emergency Medicine Academic Centre, Cardiff University; Emergency Medicine Consultant, Prince Charles Emergency Department, Cwm Taf Morgannwg University Health Board.

Dr Williams established the 'Emergency, Pre-hospital and Immediate Care' intercalated BSc (EPIC iBSc) degree, which was approved by Cardiff University in 2016, Welsh Government funded since 2017, and for which he has been the programme director since 2018. He later became the Year 3 'Hospital Front Door' Module Lead for the undergraduate MBBCh programme at Cardiff University in 2018.

He became a Fellow of Advance Higher Education (FHEA) in 2019. He now runs the Emergency Medicine Academic Centre (EMAC) at Cardiff University. Current innovation projects include the development of a new virtual reality eLearning platform (funded by the EU and Welsh Government) and establishing a VR innovation lab in the University Hospital of Wales with colleagues from the Cardiff and Vale University Health Board (Welsh Government funded).



### Simon Enoch

Cyfarwyddwr Partneriaeth, Rescape Innovation Ltd.

Ymunodd Simon Enoch â Rescape ym mis Ionawr 2022, yn dilyn gyrfa 25 mlynedd yn y diwydiant fferyllol, gan arwain timau gwerthu, marchnata a mynediad i'r farchnad.

Ar ôl cael profiad helaeth ym maes gwerthu a magu dealltwriaeth o'r heriau sy'n gysylltiedig â chaffael a rheoleiddio'r GIG, mae Simon yn benderfynol o sicrhau bod manteision tystiolaethol triniaeth Ymgolli Therapiwtig ar gael i boblogaeth mor eang â phosibl.

Mae'n credu bod athroniaeth sy'n canolbwyntio ar y claf, gan sicrhau bod y defnydd yn cael ei symleiddio ac mor ddi-rwystr â phosibl i bawb, yn rhan annatod o'r llwyddiant hwn.

### Simon Enoch

Partnership Director, Rescape Innovation Ltd.

Simon Enoch joined Rescape in January 2022, following a 25-year career in the pharmaceutical industry, leading sales, marketing, and market access teams.

Having accumulated a wealth of sales experience and an understanding of the challenges involved in NHS procurement and regulation, Simon is determined to make the evidenced benefits of Immersive Therapeutic treatment available to as wide a population as possible.

He believes a patient-centric philosophy, ensuring that deployment is simplified and as barrier-free as possible for all parties, is integral to this success.



**Robin Davies,**  
Prif Swyddog Technoleg, Virtus Tech.

Mae Robin yn goruchwyllo strategaeth a gweithrediad technoleg, gan ysgogi arloesedd o fewn Virtus Tech. Mae ganddo angerdd am dechnoleg, yn enwedig Realiti Rhithwir a chyfrifiaduron.

**Robin Davies,**  
Chief Technology Officer, Virtus Tech.

Robin oversees the technology strategy and implementation, driving innovation within Virtus Tech. He has a passion for technology especially VR and computers.



**Dr Michal Tombs**  
Darllenydd mewn Addysg Feddygol, Prifysgol Caerdydd.

Mae Dr Michal Tombs yn Ddarllenydd ac yn Arweinydd Ymchwil Ôl-raddedig yn y Ganolfan Addysg Feddygol, Prifysgol Caerdydd. Mae hi wedi goruchwyllo nifer o brosiectau ymchwil ar addysg ddigidol, ac mae'n addysgu'n helaeth ar y rhaglenni Meistr a addysgir. Mae ganddi arbenigedd arbennig mewn Damcaniaethau Dysgu Seicolegol a Sgiliau Ymchwil Addysgol.

Seicoleg Alwedigaethol yw cefndir Michal, ac mae ei diddordebau ymchwil yn pontio amrywiol gymwysiadau damcaniaethau seicolegol o fewn addysg feddygol.

Mae hi hefyd yn arwain grŵp Ymchwil Addysg Feddygol (SoMMER) yr Ysgol Feddygaeth ac mae'n Arweinydd Ysgoloriaethau ac Ymchwil Addysgegol yn yr Uned Amgylchedd Rhithwir Rhyngweithiol Hybrid (HIVE).

**Dr Michal Tombs**  
Reader in Medical Education, Cardiff University.

Dr Michal Tombs is a Reader and the Postgraduate Research Lead at the Centre for Medical Education, Cardiff University. She has supervised numerous research projects on digital education, and she teaches extensively on the taught Masters programmes, with a particular expertise in Psychological Learning Theories and Educational Research Skills.

Michal's background is Occupational Psychology, and her research interests span across the various applications of psychological theories in medical education.

She also leads the School of Medicine Medical Education Research (SoMMER) group and is the Scholarship and Pedagogic Research Lead at the Hybrid Interactive Virtual Environment (HIVE) Unit.



**Georgia Gay**  
Swyddog Datblygu Busnes, Cyberdyne Inc.

Cwmni roboteg Japaneaidd yw Cyberdyne a sefydlwyd yn 2004, gyda'r nod o helpu Japan i ddatrys rhai o'r problemau a gododd oherwydd y boblogaeth sy'n heneiddio. Datblygodd yr Athro Sankai, Llywydd a Phrif Swyddog Gweithredol Cyberdyne, yr ystod HAL, sef Aelod a Gynorthwywyd ar Ffurff Hybrid (Hybrid Assisted Limb).

Ecsosgerbydau yw ystod HAL sy'n defnyddio bwriad y gwisgwr i helpu i adsefydlu'r defnyddiwr. Gwneir hyn trwy godi signalau biodrydanol yr unigolyn a anfonir o'r ymennydd i'r cyhyrau penodol trwy electroodau. Mae'r ystod HAL yn cwmpasu'r cymal sengl, yr aelod isaf, a'r meingefn, a ddefnyddir i helpu i dargedu rhannau penodol o'r corff.

Mae'r ystod HAL yn amrywio o ddefnydd gyda chleifion mewn lleoliadau adsefydlu ac ysbytai, hyd at ddiogelu gwaith mewn diwydiant megis gofalwyr.

**Georgia Gay**  
Business Development Officer, Cyberdyne Inc .

Cyberdyne is a Japanese robotics company founded in 2004, with the goal of helping Japan resolve some of the problems that arose due to the ageing population. Professor Sankai, Cyberdyne's President and CEO, developed the HAL range, which stands for Hybrid Assisted Limb.

The HAL range are exoskeletons that utilise the wearer's intention to help rehabilitate the user. This is done by picking up the person's bio electrical signals sent from the brain to the specific muscles via electrodes. The HAL range encompasses the single joint, the lower limb, and the lumbar, which are all used to help target specific areas of the body.

The HAL range vary from use with patients in rehab and hospital settings, through to protecting working in industry such as carers.



### **Professor Peter Cnudde**

Llawfeddyg Trauma ac Orthopedig Ymgynghorol, Ysbyty Tywysog Philip, Bwrdd Iechyd Prifysgol Hywel Dda.

Mae'r Athro Peter Cnudde yn llawfeddyg newid cymalau yn Ysbyty'r Tywysog Philip. Yn wreiddiol o ardal arfordirol Fflandrys, ymunodd â'r GIG fel ymgynghorydd yn 2002.

Mae wedi bod yn datblygu'r gwasanaeth cymalfurfiad gyda'i gydweithwyr, er mwyn ei ddatblygu yn ganolfan atgyfeirio drydyddol. Arweiniodd y gwaith o weithredu llwybr adferiad buan (ERAS) a chanoli orthopaedeg ddewisol.

Derbyniodd Peter ei PhD mewn Gwyddorau Clinigol yn 2018 o Brifysgol Gothenburg, Sweden a dyfarnwyd cymrodoriaeth ryngwladol fawreddog iddo, sef Cymrodoriaeth Rothman-Ranawat (UDA). Hefyd, mae wedi derbyn gwobr effaith genedlaethol, cadair anrhydeddus a gwobr amser ymchwil, sy'n cydnabod ei gyfraniadau at ddatblygu gwasanaeth a chyflawniadau academaidd.

Ar hyn o bryd mae'n gweithio tuag at gymhwyster Doethur mewn Gweinyddu Busnes (DBA) gyda'r Ysgol Reolaeth ym Mhrifysgol Abertawe.

### **Professor Peter Cnudde,**

Consultant Trauma and Orthopaedic Surgeon, Department of Orthopaedics, Prince Philip Hospital, Hywel Dda University Health Board.

Professor Peter Cnudde is a high-volume joint replacement surgeon at Prince Philip Hospital, Llanelli. Originally from the Flemish seaside, he joined the NHS as a consultant in 2002.

He has been developing the arthroplasty service with his colleagues to become a tertiary referral centre. He led the implementation of enhanced recovery pathway (ERAS) and centralisation of elective orthopaedics.

Peter received his PhD in Clinical Sciences in 2018 from the University of Gothenburg, Sweden. He has been awarded the prestigious international Rothman-Ranawat Fellowship (USA), a national impact award, an honorary chair, and a research time award, acknowledging the contributions to service development and academic achievements.

He is currently working towards a DBA with the School of Management, Swansea University.



### **Dr Daniel Harris**

Fferyllydd Arweiniol, Gwasanaethau Cardiaidd, Bwrdd Iechyd Prifysgol Hywel Dda, a Fferyllydd Academaidd Clinigol, Sefydliad TriTech. Athro Cysylltiol Anrhydeddus ym Mhrifysgol Abertawe.

Gyda mwy nag 20 mlynedd o brofiad mewn meddygaeth glinigol, penodwyd Dr Daniel Harris yn ddiweddar yn Fferyllydd Academaidd Clinigol ym Mwrdd Iechyd Prifysgol Hywel Dda, ac yn Athro Cysylltiol Anrhydeddus mewn Ffarmacoleg ym Mhrifysgol Abertawe.

Mae diddordebau clinigol a gwyddonol Daniel yn canolbwyntio ar ganfod a rheoli risg cardiofasgwlaidd. Ar hyn o bryd mae'n darparu rhaglen ymchwil gan ddefnyddio data gofal iechyd y boblogaeth i lywio a phrofi'r ffordd orau o reoli ffactorau risg clefyd cardiofasgwlaidd addasadwy mewn cleifion risg uchel ledled de a gortllewin Cymru.

### **Dr Daniel Harris**

Lead Pharmacist, Cardiac Services, Hywel Dda University Health Board, and Clinical Academic Pharmacist, TriTech Institute. Honorary Associate Professor Swansea University.

Having more than 20 years' experience in clinical pharmacy practice, Dr Daniel Harris has recently been appointed as a Clinical Academic Pharmacist at Hywel Dda University Health Board, and as an Honorary Associate Professor in Pharmacoepidemiology at Swansea University.

Daniel's clinical and scientific interests are focussed on cardiovascular risk detection and management. He is currently delivering a research program using population health care data to inform and test the delivery of optimal risk factor management of modifiable CVD risk factors in high-risk patients across South and West Wales.



### **Yr Athro Keir Lewis**

Cyfarwyddwr Meddygol, Arloesedd Anadlol Cymru; Arweinydd Clinigol Meddygaeth Anadlol a Sefydliad TriTech, Bwrdd Iechyd Prifysgol Hywel Dda.

Fel clinigwr ac academydd, mae Keir Lewis yn dweud ei fod "wrth ei fodd yn gweld sut mae cleifion yn defnyddio (a newid) technolegau newydd i'w helpu yn y byd go iawn. Gan weithio o fewn 'Y Drindod Sanctaidd', sef y GIG, prifysgolion a diwydiant, gallwn gyflawni pethau na all y naill bartner na'r llall ei wneud ar ei ben ei hun. Rydym wedi denu dros £25M o gyllid i'r rhanbarth, wedi cyrchu'r dechnoleg ddiweddaraf nad yw ar gael i'r rhan fwyaf eto, ac wedi cyhoeddi a dylanwadu ar ganllawiau.

Mae gennyf ddiddordeb clinigol a diddordeb ymchwil arbennig mewn clefyd anadlol cronig sy'n achosi anabledd, apnoea cwsg, a rhoi'r gorau i ysmegu

### **Professor Keir Lewis**

Medical Director, Respiratory Innovation Wales; Clinical Lead for Respiratory Medicine and the TriTech Institute, Hywel Dda University Health Board.

As a clinician and academic I love to see how patients use (and change) new technologies to help them in the real world. Working within the 'Holy Trinity' of the NHS, universities and industry, we can achieve things that neither partner can do alone. We have attracted over £25M funding into the region, accessed state-of-art technology not yet available to most, published and influenced guidelines.

I have a special clinical and research interest in chronic disabling respiratory disease, sleep apnoea, and smoking cessation.



### **Rachel Gemine**

Pennaeth Ymchwil ac Arloesi, Iechyd a Gofal Digidol Cymru.

Mae Dr Rachel Gemine yn Bennaeth Ymchwil ac Arloesi yn Iechyd a Gofal Digidol Cymru, ac yn gyfrifol am roi'r strategaeth ymchwil ac arloesi ar waith. Mae Rachel hefyd yn gweithio'n agos gyda Sefydliad TriTech ym Mwrdd Iechyd Prifysgol Hywel Dda ac mae'n Olygydd Cyswllt yn BMJ Leader ac yn Uwch Ddarlithydd Anrhydeddus yn y Coleg Meddygaeth, Prifysgol Abertawe.

Mae hi wedi cydweithio neu arwain ar geisiadau gwerth dros £15M ac wedi ennill nifer o wobrau.

Mae gan Rachel brofiad o ddulliau ansoddol a meintiol, dylunio treialon, rheoli astudiaethau a chynnwys cleifion. Mae ei diddordeb ymchwil yn canolbwyntio ar ddata, ac mae ganddi ddiddordeb penodol mewn oncoleg a'r defnydd o dybaco.

### **Rachel Gemine**

Head of Research and Innovation, Digital Health and Care Wales.

Dr Rachel Gemine is Head of Research and Innovation at Digital Health and Care Wales, responsible for implementing the R&I strategy. Rachel also works closely with TriTech Institute at Hywel Dda University Health Board and is an Associate Editor at BMJ Leader and an Honorary Senior Lecturer at College of Medicine, Swansea University.

She has collaborated or led on bids totalling over £15million and won numerous awards.

Rachel is experienced in qualitative and quantitative methods, trial design, study management and patient involvement. Her research interest focus on data, with a specific interest within oncology and tobacco use.



### **Gareth John**

Pennaeth Cyflenwi Gwybodaeth, Iechyd a Gofal Digidol Cymru.

Mae gan Gareth dros 20 mlynedd o brofiad yn gweithio gyda gwybodaeth iechyd yng Nghymru, ac ers dros ddegawd, mae wedi arwain timau sy'n gyfrifol am reoli'r gwaith o ddatblygu a chynnal a chadw warws data cenedlaethol GIG Cymru, a gynhelir ar hyn o bryd gan Iechyd a Gofal Digidol Cymru.

Mae Gareth wedi cymhwyso ei gefndir ymchwil mewn ystadegau i nifer o brosiectau mawr o fewn GIG Cymru, gan gynnwys Rhaglen De Cymru ac Adolygiad Ambr diweddar Gwasanaeth Ambiwlans Cymru, gan ddefnyddio amrywiaeth o dechnegau dadansoddol uwch, megis dysgu peirianyddol, modelu ac efelychu.

Yn ogystal, mae Gareth wedi bod yn gyfrifol am ddatblygu amrywiaeth o wahanol algorithmau cysylltu cofnodion, gan alluogi dadansoddwyr y GIG i olrhain teithiau cleifion (neu ddinasyddion) drwy'r system iechyd gyfan, tra'n diogelu cyfrinachedd cleifion trwy gyfrwng technegau megis ffugenwi. Mae algorithm Gareth ar gyfer paru rhifau GIG yn parhau i fod yn un o gonglfeini SAIL, sef cronfa ddata byd-enwog Prifysgol Abertawe.

### **Gareth John**

Head of Information Delivery, Digital Health and Care Wales.

Gareth has more than 20 years' experience working with health information in Wales, and for over a decade, has headed up teams responsible for managing the development and maintenance of NHS Wales' national data warehouse, currently hosted by Digital Health and Care Wales.

Gareth has applied his research background in statistics to a number of major NHS Wales projects, including the South Wales Programme, and the Welsh Ambulance Service's recent Amber Review, using a variety of advanced analytical techniques such as machine learning, modelling and simulation.

In addition, Gareth has been responsible for the development of a range of different record linkage algorithms, allowing NHS analysts to track patient (or citizen) journeys through the whole health system, whilst safeguarding patient confidentiality through techniques such as pseudonymisation. Gareth's NHS number matching algorithm remains one of the cornerstones of Swansea University's world-renowned SAIL databank.



### **Jennifer Selby**

Uwch Arbenigwr Cynnyrch, Iechyd Digidol a Gofal Cymru.

Ar ôl graddio yn 2015 o Brifysgol Aberystwyth gyda gradd BSc mewn Mathemateg, treuliodd Jennifer nifer o flynyddoedd yn gweithio ym maes data a dadansoddeg yn y sector preifat, cyn ymuno â'r GIG yn 2020 fel Uwch Arbenigwr Cynnyrch yng Ngwasanaeth Gwybodeg GIG Cymru.

### **Jennifer Selby**

Senior Product Specialist, Digital Health and Care Wales.

After graduating in 2015 from Aberystwyth University with a BSc degree in Mathematics, Jennifer spent several years working in data and analytics in the private sector, before joining the NHS in 2020 as Senior Product Specialist in NHS Wales Informatics Service.

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Mae cyfleusterau labordy Profiad Defnyddwyr Amlfoddol (UX) a Gwerthuso Defnyddioldeb (UE) ATiC yn y byd yn ei gwneud yn bosibl cipio a mesur ymddygiad dynol, symudiad, perfformiad gwybyddol, emosiynol a chorfforol yn ogystal ag ymatebion goddrychol. Yn gysylltiedig â hyn mae galluoedd sganio, modelu, efelychu rhithwir 3D, gweithgynhyrchu ychwanegion a phrototeipio i gefnogi datblygiad cyflym a gwerthuso technolegau iechyd newydd arloesol.

Mae cyfleusterau ymchwil labordy Profiad Defnyddwyr **ATiC** (UX) a Gwerthuso Defnyddioldeb (UE) yn canolbwyntio ar:

ATiC's world recognised multi-modal User Experience (UX) and Usability Evaluation (UE) laboratory facilities in Swansea enable the capture and measurement of human behaviour, movement, cognitive, emotional and physical performance in addition to subjective responses. Allied with this are extensive 3D scanning, modelling, virtual simulation, additive manufacturing and prototyping capabilities to support the rapid development and evaluation of innovative new health technologies.

**ATiC's** User Experience (UX) and Usability Evaluation (UE) Laboratory research facilities are focused on:



## Mesur ymddygiad dynol a seicoffsiologol: Human behaviour and psychophysiological measurement:

- Noldus Viso, 10 camera Multi-sector Observation Lab.
- Noldus Portable Observation Lab, with Media Recorder.
- Noldus behavioural analysis systems, Observer XT and FaceReader.
- Extensive AV capture systems for lab and field work.
- Tobii Eye Tracking Systems:
  - Mobile – Tobii Pro Glasses 2 Live View Wireless System
  - Remote – Tobii Pro X3-120 and Tobii Nano bar systems for Desktop and Mobile devices.
  - VR – Tobii HTC Vive System with 120Hz eye tracking.
- MindWare Mobile Impedance Cardiograph (EKG, GSR, EMG, Z0, dZ/dt, Respiratory, 3 axis accelerometry).
- Artinis OctoMon (fNIRS) frontal brain activity monitoring system.





**Symudiad dynol a mesur perfformiad:**  
**Human movement and performance measurement:**

- UX SIMI Motion Markerless Motion Analysis System.
- Axivity AX6 6-axis 16 sensor wearable movement sensor system.
- Delsys Trigno Avanti EMG (+IMU) 16 sensor system.
- Tekscan CONFORMat 2 VersaTek Seating & Positioning System
- Tekscan F-Scan In-Shoe Foot function & Gait Analysis System.
- Tekscan VersaTek Tactile Grip Force and Pressure Sensing System.
- BodiTrak2 Pro Bed Pressure Mapping Sensor.
- iShear – shear force measurement system.
- FLIR T1Ksc HD Thermal Imaging Camera and Research Studio Pro analysis software

**Argraffu a Phrototeipio 3D:**  
**3D Printing and Prototyping:**

- Stratasys F370 FDM 3D Printer System.
- Stratasys Objet30 Prime 3D Printer System.
- Ultimaker S5 and 3 FDM 3D Printer Systems.
- Formlabs Form 3+ and Form 3B+ SL resin printer systems.
- Bigrep Studio Large Format 3D Printer System.
- Markforged X7 Composite (Fibreglass / Carbon Fibre / Kevlar) 3D Printer System.
- CNC Router / Laser Cutter / Waterjet Cutter.
- Multi-material prototyping and finishing workshops.

**Cipio realiti, modelu 3D ac efelychu rhithwir:**  
**Reality capture, 3D modelling and virtual simulation:**

- Mantis Vision F6 and Mantis Vision F6-SR scanning system.
- Artec Space Spider and Eva Scanning System.
- Geomagic Design X reverse engineering software.
- Geomagic Freeform modelling software.
- Geomagic Touch Haptic Modelling System.
- Software for 3D design and visualisation: Autodesk Fusion360, Autodesk VRed, Solidworks, Cinema 4D, Unity.
- Custom VR Workstations with HTC Vive Pro and Pro 2 Systems.
- + access to an Immersive Simulation Space (16.32x2.7m 12K LED screen three-sided cube with 7.1 surround sound) driven by Igloo Immersive Vision software.

# Y Matrics Arloesi

Eich cyfle i gymryd lle yn ecosystem menter ac arloesi newydd PCYDD

# The Innovation Matrix

Your chance to take space in UWTSd's new enterprise and innovation ecosystem



Adeilad ac ecosystem arloesi newydd o'r radd flaenaf wedi'u lleoli yn Ardal Glannau SA1 Abertawe fydd y **Matrics Arloesi**. Mae'r Matrics Arloesi'n cynnig gofod i fusnesau newydd a swyddfeydd i fentrau sy'n barod i archwilio partneriaethau ymchwil a chyfnewid gwybodaeth gyda'n Prifysgol. Ar ôl derbyn lle yn y Matrics Arloesi, daw eich menter yn rhan o gymuned arloesi newydd a bywiog ochr yn ochr â'n hunedau ymchwil a chyfnewid gwybodaeth allweddol yn y Brifysgol. Byddwch hefyd yn cael cyfle i gael mynediad i gyfleusterau blaengar sydd wedi'u lleoli yn adeiladau cyfagos ein campws, gan roi cymorth technegol i chi i helpu i gyflymu datblygiad cynnyrch newydd a thyfu eich menter.

Mae'r Matrics Arloesi i fod i agor ym mis Mai 2024. Mae nifer fach o weithleoedd yn dal ar gael, mae hyn yn cynnwys desg boeth, desg barhaol a gofod swyddfa, gyda'r olaf yn amrywio o 25m<sup>2</sup> hyd at 250m<sup>2</sup>.

I ddysgu rhagor, anfonwch e-bost at: [matrix@uwtsd.ac.uk](mailto:matrix@uwtsd.ac.uk) neu ewch i [www.uwtsd.ac.uk/cy/matrics/](http://www.uwtsd.ac.uk/cy/matrics/)

Ffrwyth partneriaeth strategol rhwng Prifysgol Cymru Y Drindod Dewi Sant a Bargaen Ddinesig Bae Abertawe yw'r Matrics Arloesi. Ariennir Bargaen Ddinesig Bae Abertawe gan Lywodraeth y DU, Llywodraeth Cymru, y sector cyhoeddus a'r sector preifat.

The **Innovation Matrix** will be a new state-of-the-art building and innovation ecosystem located in Swansea's SA1 Waterfront District. The Innovation Matrix offers start-up space and office accommodation for enterprises that are willing to explore research and knowledge exchange partnerships with our University. Upon taking space in the Innovation Matrix, your enterprise will become part of a new and vibrant innovation community alongside our key University research and knowledge exchange units. You will also have the opportunity to access cutting edge facilities located in our adjacent campus buildings, providing you with technical support to help accelerate new product development and grow your enterprise.

The Innovation Matrix is scheduled to open in May 2024. A small amount of accommodation remains available, this includes hot desk, permanent desk and office space, with the latter ranging from 25m<sup>2</sup> up to 250m<sup>2</sup>.

To find out more please email: [matrix@uwtsd.ac.uk](mailto:matrix@uwtsd.ac.uk) or visit [www.uwtsd.ac.uk/matrix](http://www.uwtsd.ac.uk/matrix)

The Innovation Matrix is the result of a strategic partnership between the University of Wales Trinity Saint David and the Swansea Bay City Deal. The Swansea Bay City Deal is funded by the UK Government, the Welsh Government, the public sector and the private sector.





