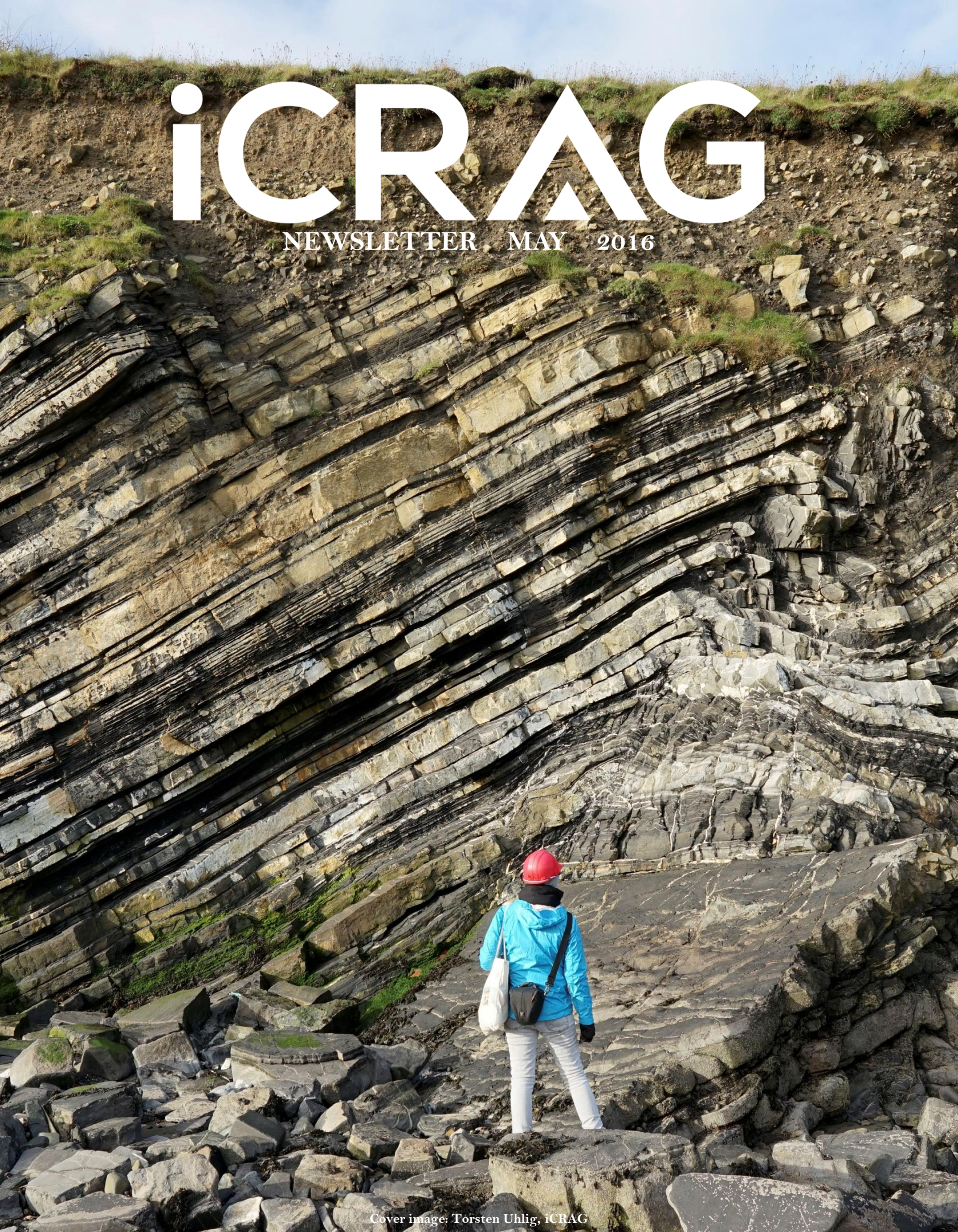


# iCRAG

NEWSLETTER MAY 2016



## Welcome!

Welcome to the iCRAG Newsletter. As you'll see, over the past few months iCRAG researchers have been busy attending conferences, delivering keynotes and bringing the work of iCRAG out to the general public.

If you have any news items that you want to convey to other iCRAG members, please let us know.

# iCRAG

## iCRAG Summit 2016



The iCRAG Summit 2016 will be taking place at the Hodson Bay Hotel Athlone on June 8-9<sup>th</sup>. The Summit will serve as an integral annual event for gathering together all of iCRAG's members and research strands to grow and develop the Centre.

Over the course of the Summit all iCRAG researchers will be given the opportunity to present on their research and to contribute to shaping the future direction of the Centre.

Booking details have been circulated to all who have indicated their attendance.

## Open Project Call

iCRAG will be having an open call for projects (deadline 24th June): the funding will support 4 year PhDs (grant, EU fees, together with standard additional costs for travel and materials). Projects must be within iCRAG's remit (spoke or platform) and the call is only open to iCRAG-linked academics with one or no funded (PhD or Post-Doc) project. Only one application as lead supervisor will be accepted per person.

For further information relating to this call please contact Deirdre Clayton: [deirdre.clayton@icrag-centre.org](mailto:deirdre.clayton@icrag-centre.org)

## Current vacancies

A number of postdoctoral and PhD research positions are currently available in iCRAG. These positions lie within our raw materials, groundwater and hydrocarbons spokes, and our geophysics platform.

For more information on any of these positions please visit: [icrag-centre.org/vacancies](http://icrag-centre.org/vacancies)



# Recent Success

## Research Infrastructure Funding Success for iCRAG

Congratulations to iCRAG Co-PI Prof. Chris Bean (iCRAG at DIAS) and Deputy Director Prof. Balz Kamber (iCRAG at TCD) on being awarded two prestigious SFI Research Infrastructure Awards in January.

### **Prof. Chris Bean: Insitu Marine Laboratory for Geosystems Research (iMARL): €2,856,176**



Ireland has an ocean territory ten times larger than its terrestrial landmass. Geological, oceanographic and biological processes mutually interact on a daily basis in this vast territory. Continuously recording offshore sensors are required to monitor this activity. Here we establish the Insitu Marine Laboratory for Geosystems Research (iMARL) comprising Ocean Bottom Seismographs (OBSs), Temperature and Acoustic Recorders. Strapped to sea-bed landers and deployed on the sea floor this equipment will allow for the detections of offshore earthquakes and offshore storms, as well as noise in the ocean and biologically generated acoustic signals (e.g. from whales). Impacts include: natural resources quantification, natural hazard estimation, environmental and baseline climate related insitu ocean monitoring. A pilot tsunami detection system will also be installed as part of the network.

### **Prof. Balz Kamber: Geosciences Electron Beam Mineral Analyser – GeoRise: €636,161**



The GeoRise is a special type of scanning electron microscope, which geoscientists will use to investigate real-world sized rocks at sub-microscopic scale. This cutting edge analytical instrument will have a wide array of detectors that allow the simultaneous determination of many properties, such as composition, luminescence and atomic arrangement. The GeoRise also has software that can automatically recognise groups of minerals within a rock and map their mutual relationships. Most importantly, the GeoRise can quantify the content of valuable metals in rocks in unprecedented detail. It will thus be used to develop new approaches to resource and energy efficiency.

This investment is made by the Department of Jobs, Enterprise and Innovation through Science Foundation Ireland.

Further info on the iCRAG [website](#).



# Recent Success

## IGRM Awards



Congratulations to PhD student Pablo Rodriquez Salgado (iCRAG at UCD) who won 'Best Poster' at IGRM in February for his poster on 'Cenozoic inversion structures in the central part of the North Celtic Sea Basin'

Also at IGRM, PhD student Deirdre Walsh (iCRAG at UCD) received a special mention for her poster on 'Reservoir modelling conditioned to seismic and well data'.



## Beamtime in Berkeley

Congratulations to Dr Sarah Nicholas (iCRAG at NUIG) as her proposal to the Lawrence Berkeley National Lab Advanced Light Source (LBNL-ALS) at UC Berkeley was ranked third and was awarded the full beamtime allocation requested.



## Viva success

Congratulations to Dr Fergus Mc Auliffe who recently passed his PhD viva at the UCC School of BEES. Fergus' research was on the use of willows for wastewater treatment in low permeability subsoils.

## Seed Funding

Dr Steve Hollis (iCRAG at UCD) successfully obtained €1700 of seed funding (UCD) to attend the International Geological Congress in South Africa to present preliminary project data in August 2016.



Steve also successfully obtained £650 from the Geological Society of London for costs associated with fieldwork in Co. Tyrone. The project will involve structural mapping in the Tyrone Igneous Complex with Dr Koen Torremans (iCRAG at UCD) and personnel from the GSNI (Mark Cooper) and iCRAG at TCD (Dr David Chew).

## International Geological Congress in SA

In addition to Steve, iCRAG be well represented at the International Geological Congress in South Africa this August by Dr Thomas Riegler, Dr Lingli Zhou and Oakley Turner (all iCRAG at TCD) who have had abstracts accepted. All of us here at iCRAG are looking forward to the updates from South Africa.

## COST Migrate Action

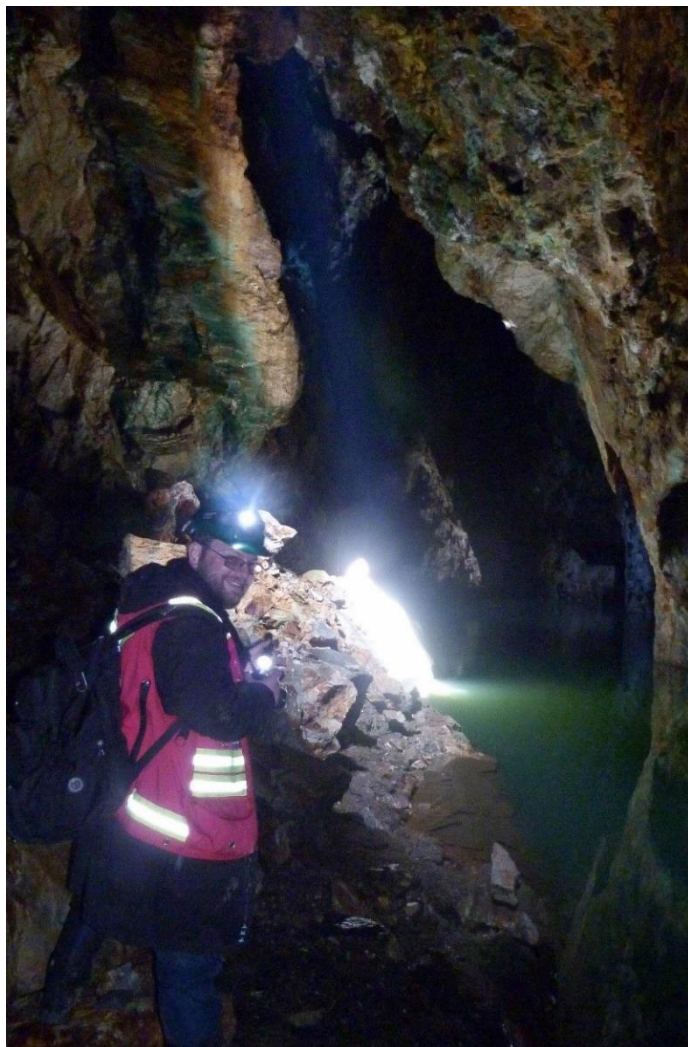


Dr Srikumar Roy (iCRAG at UCD) has been accepted to the COST Migrate Action (Marine Gas Hydrate – an indigenous resource of natural gas for Europe). COST Actions are an EU funding mechanism that fund networking activities throughout Europe such as meetings, travel, conferences and short term scientific exchanges.

There are COST Actions in a multitude of disciplines and iCRAG researchers can apply to join these actions. Take a look at [http://www.cost.eu/COST\\_Actions/all\\_actions](http://www.cost.eu/COST_Actions/all_actions) to see if there are any in your area and contact Deirdre Clayton to discuss.



## Underground at Allihies, West Cork



On Thursday 14th April, Dr Richard Unitt and Juergen Lang (iCrag at UCC) were escorted underground at Mountain Mine, Allihies, West Cork by Mr Tadhg O'Sullivan from the Allihies Copper Mine Museum. Juergen (pictured) is working on the metallogenesis of Upper Palaeozoic sedimentary rocks in southern Ireland and has started by examining the structural complexities present in the vein systems at Allihies. This photo was taken in one of the main stopes with typical green and blue copper sulphate efflorescence on the walls. If you time your visit correctly a beam of light will descend from the shaft above onto the 'lake'. For further info please contact Dr Richard Unitt ([richard.unitt@icrag-centre.org](mailto:richard.unitt@icrag-centre.org))

## Balz on Futureproof

Listen back to iCrag Deputy Director Prof. Balz Kamber's May 14th interview on Newstalk Futureproof on the origin of life: podcast [here](#).



## iCrag partners with Earth Science Ireland Group

iCrag has partnered with the Earth Science Ireland Group in the distribution of their magazine. Through this partnership, iCrag will keep the geological community of Ireland informed of the research in the Centre. In addition, this partnership allows iCrag to communicate on the Centre's research to schools across Ireland, while also furthering our collective objective for an improved public understanding of the geosciences. If you have any content that may be suitable for inclusion please get in touch with Fergus.



## Marine Observation Workshop



Dr Tim McCarthy (iCrag at Maynooth University) hosted a marine observation workshop at Maynooth on 22nd April which brought together researchers and industry to review various platform mapping, monitoring and tracking activities in coastal and offshore Ireland. The workshop reviewed current services, research, technologies and applications with a view as to how some of these can be improved, enhanced or developed.



# iCRAG on the road

An iCRAG project took over the road on April 19th on the N20, near Rathduff in County Cork. The project is examining the mineralogical and surface textural controls of stone aggregates displaying high PSV (Polished Stone Value).



Through this postdoctoral project, Dr Richard Unitt (iCRAG at UCC) is examining how the surface texture and mineralogy of aggregates is affected by weathering and traffic. Data will be utilised to determine whether existing test procedures are sufficient and to develop an alternative method to account for varying road and environmental conditions.

# Science Apprentice Magazine

Work is continuing on the Scientists' Apprentice magazine which will be circulated with the Irish Independent in November. iCRAG, in conjunction with UCD Research, is partnering with Gorthaganny National School, Roscommon to develop a magazine aimed at 7-12 year old children on energy and resources.



# iCRAG goes deep



Prof Andy Wheeler (iCRAG at UCC) and his team have just completed a deep-sea survey for iCRAG looking at cold-water corals in submarine canyons in the North Atlantic. They are using the corals as archives of environmental change by biogeochemically analysing their growth rings. Pictured in the image: A *Parantipathes* sp. with smaller black coral (orange in the photo) and *Lophelia pertusa* in the back next to the iCRAG logo at 670m water depth. Further info and link to blog entry [here](#).

# Public Perception and Understanding of Geosciences report issued

As part of the Public Perception and Understanding (PPU) platform research in iCRAG, the Geological Survey of Ireland (GSI) contracted SLR Consulting to carry out a systematic review of the 'key issues around social acceptance of geoscience activities & Earth resources in Ireland', focused on core geoscience activities, including research, exploration and extraction of minerals, energy and water resources.

The study involved a comprehensive review of national and international literature; consultations with members of the public, industry, national and local government, academia, NGOs, landowners and community activists, and a consultative workshop on 3<sup>rd</sup> May to identify key issues for further research through the PPU platform.

Read the full report [here](#).



# iCRAG abroad

## Sofia Science Festival

### Sergei at EGU



Dr Sergei Lebedev (iCRAG at DIAS) delivered an invited talk at the European Geosciences Union General Assembly, Vienna, Austria, 17-22 April 2016 on seismic-waveform imaging of the margins of the North and South Atlantic



Dr Fergus Mc Auliffe delivered a talk at the Sofia Science Festival in Bulgaria on science communication in iCRAG and in Ireland. He also gave an interview to the Sofia Globe which can be read [here](#).

### iCRAG in Washington DC

In March, iCRAG Director Prof. John Walsh and Centre Manager Dr Jennifer Craig were part of a Science Foundation Ireland delegation to Washington DC as part of the St Patrick's Day celebrations and presentation of the St Patrick's Day Science Medal. John is pictured here speaking at the event and spreading the good word of iCRAG to members of the US media and the National Science Foundation.

At the same event Science Foundation Ireland launched #ScienceRising - a year long public engagement campaign. Visit [sciencerising.sfi.ie](http://sciencerising.sfi.ie) for more info.



### And finally...



As a novel means of public engagement iCRAGers at UCD took part in the geobakeoff, an international geo-cake baking competition run by the Geological Society of London. Pictured here is Deirdre Walsh's Jurassic World mosasaur. See the full gallery on our [Twitter](#) page.

### iCRAG on social media

A new LinkedIn [group](#) for all in iCRAG has been created to enable the sharing of career-related opportunities. Do join!



Have something you would like to see covered?  
Get in touch: [fergus.mcauliffe@icrag-centre.org](mailto:fergus.mcauliffe@icrag-centre.org)

