

Table of Contents

Welcome	03
Workshop Programme	04
Travel Information	06
Accommodation Information	08
Useful Information	10
About your Hosts	12

Welcome to the Data Mining with iPlant workshop

The iPlant Collaborative delivers a community-driven cyberinfrastructure for life sciences research. It allows its 9000 registered users from all over the world to access high performance computing power, large scale data storage, and analytical software needed for a variety of data- or compute-intensive research applications.

The first day of the 4-day Data Mining with iPlant workshop provides a free overview and introduction to the iPlant Collaborative and how its major offerings – the Data Store, Discovery Environment, Foundation API and Atmosphere – can radically enhance your scientific productivity.

Delegates registered for the full 4 days will explore the iPlant cyberinfrastructure in more depth and discover how it can be used in a variety of research settings through a mixture of lectures and interactive workshops. They will also have the opportunity to work with and analyse real data to really get to grips with this exciting technology.

Along with guest speakers from the Hartree Centre and The Genome Analysis Centre, Data Mining with iPlant promises to be a informative and very useful workshop that we hope you will all enjoy.

Professor Jim Beynon
GARNet Principal Investigator

Acknowledgements

GARNet would like to thank the following organisations for their support:



Day 1: Tuesday 17 September

Introduction to the iPlant Collaborative

At this free first day of the Data Mining with iPlant workshop, delegates will learn about the iPlant Collaborative, and the cyberinfrastructure and computational tools and resources it develops for the benefit of the plant science community.

Please arrive promptly at the University of Warwick's School of Life Sciences and report to the main reception.

10:00	Registration at the School of Life Sciences reception
10:30	iPlant: Introduction and overview
11:00	Overview of the Discovery Environment
11:30	iPlant Data Store: Managing "Big Data"
12:15	Atmosphere: Custom cloud computing
13:00	Lunch
13:45	Building and using workflows within the Discovery Environment
14:30	Powered by iPlant: Consuming iPlant services
15:30	Presentation by the Hartree Centre
16:00	Coffee break
16:30	Extending the Discovery Environment for your research
17:00	Collaborating with iPlant
17:30	End

Day 2: Wednesday 18 September

Delegates who have registered for the 4-day Data Mining with iPlant workshop will return to the University of Warwick on Day 2 for some hands-on explorations of the ways in which the iPlant cyberinfrastructure can be used in real research settings.

A coach will collect delegates staying at the Windmill Village Hotel at 08:30 and will depart the School of Life Sciences to return to the hotel at 19:00.

09:00	Examining differential expression within an RNA-Seq dataset
11:00	Coffee break
11:30	Examining differential expression within an RNA-Seq dataset (continued)
13:30	Lunch
14:30	Getting started with GBS and GWAS
16:30	Coffee break
17:00	Getting started with GBS and GWAS (continued)
19:00	End

Day 3: Thursday 19 September

On the morning of Day 3, delegates will continue to explore more of the ways that the iPlant cyberinfrastructure can be used. After lunch and a presentation by The Genome Analysis Centre, delegates will then have the opportunity to work with their own datasets to explore how iPlant can help in their analysis.

A coach will collect delegates staying at the Windmill Village Hotel at 08:30 and will depart the School of Life Sciences to return to the hotel at 19:00.

09:00	Inferring genetic networks
11:00	Coffee break
11:30	Inferring genetic networks (continued)
13:30	Lunch
14:30	Presentation by The Genome Analysis Centre
15:00	Advanced topics in extending the iPlant cyberinfrastructure
16:30	Coffee break
17:00	Scheduled meetings with iPlant consultants
19:00	End

Day 4: Friday 20 September

The final day of the Data Mining with iPlant workshop will focus on further analysis of delegates' own data.

09:00	Scheduled meetings with iPlant consultants
11:00	Coffee break
11:30	Scheduled meetings with iPlant consultants
13:30	Lunch
14:30	Scheduled meetings with iPlant consultants
16:30	End

A coach will collect delegates staying at the Windmill Village Hotel at 08:30. As the hotel check out time is 11:00, please ensure that you have checked out of your hotel room before you leave.

After the workshop, the coach will collect delegates from the School of Life Sciences and make two stops: one at Coventry Rail Station, and one at the Windmill Village Hotel to allow guests to collect their own vehicles.

Data Mining with iPlant will be held at the University of Warwick's School of Life Sciences, which is located on the Gibbet Hill Campus, a short walk from the Central Campus.

Address

School of Life Sciences
Gibbet Hill Campus
University of Warwick
Gibbet Hill Road
Coventry
CV4 7AL
UK

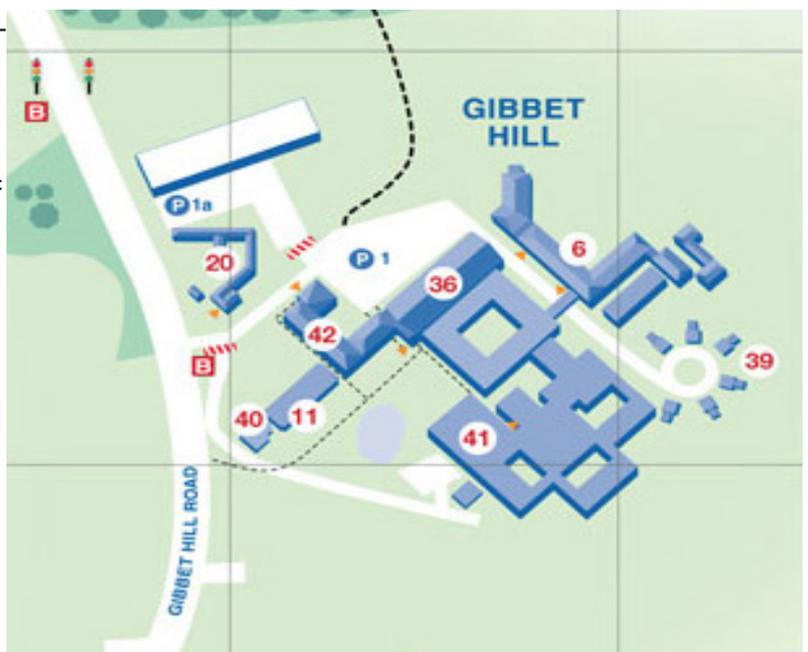
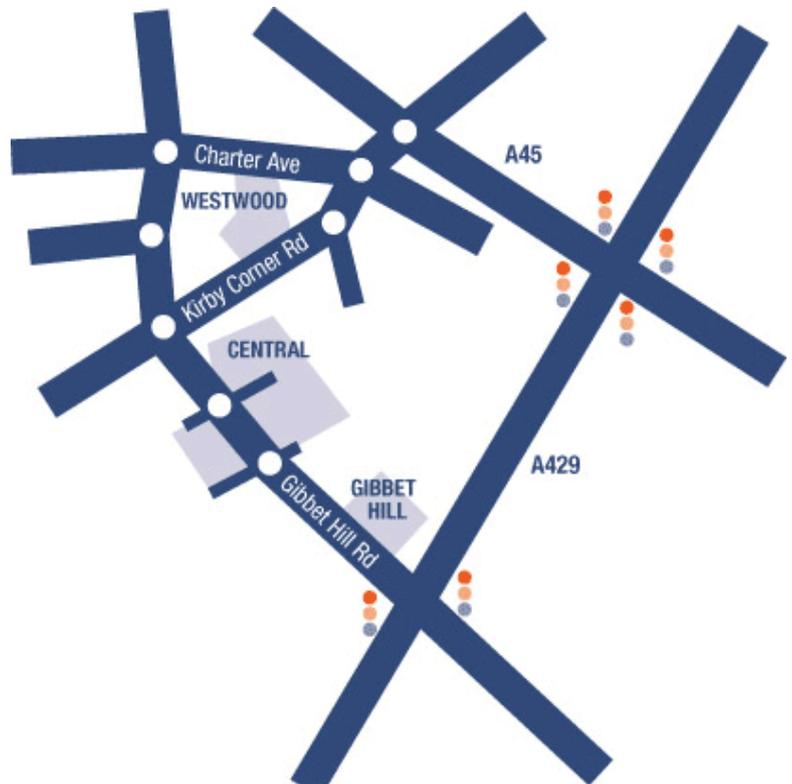
4-day delegates

If you have registered for the 4-day Data Mining with iPlant workshop, accommodation is provided for you on 17, 18 and 19 September at the Windmill Village Hotel, Allesley, Coventry. Please note the following transport arrangements:

Tuesday 17 September: You will need to make your own way to the School of Life Sciences on the morning of 17 September. A coach is available to take you back to the hotel at the end of the day (19:00).

Wednesday 18 and Thursday 19 September: A coach will collect you from outside the Windmill Village Hotel at 08:30 and will depart the School of Life Sciences at 19:00 to take you back to the hotel.

Friday 20 September: A coach will collect you from the Windmill Village Hotel at 08:30, and will depart the School of Life Sciences at 16:30. The coach will drop you either at Coventry Rail Station or the Windmill Village Hotel.



Getting here

For delegates attending the Introduction to iPlant on Day 1, or for 4-day delegates wishing to use their own transport, please note that car parking at the University of Warwick is very limited, so we recommend that you travel by public transport if at all possible.

By train or bus

The nearest main rail station is Coventry, which has excellent links to and from Birmingham, London and other UK cities. The station is approximately 15 minutes by taxi from the School of Life Sciences. For more information about timetables and services, please see www.nationalrail.co.uk.

Frequent local buses serve both Coventry Rail Station and the University campuses; there is a bus stop directly outside the main entrance to the Gibbet Hill Campus. Please see www.travelcoventry.co.uk, or call Traveline on 0870 608 2 608 for more information.

By car

The University of Warwick is conveniently located close to major transport routes. For directions on how to get to the School of Life Sciences, please visit the links on the University of Warwick website at www2.warwick.ac.uk/about/visiting/.

Car Parking

Please note that car parking at the University of Warwick can be difficult. If you wish to use your own car, please let a member of the GARNet team know in advance and we will arrange visitor parking for you. This will be located in Car Park 2, which is a 10–15 minute walk from the Gibbet Hill Campus. Alternatively, a free shuttle bus circuits the University every half an hour from 08:15, stopping at Central Campus, Car Park 2 and Gibbet Hill Campus.

If you are a blue badge holder and wish to use a disabled parking bay at Gibbet Hill, please let us know so that we can make sure a space is reserved for you.

Additional car parking is available on Central Campus in Car Parks 4a, 5 (short stay), 7, 8, 8a, 9, 10, 10a, 10b, 12, 13 and 15. These operate on a pay-and-display or pay-on-foot basis. The Tocil Wood footpath (approximately a 15 minute walk from where it starts) connects Central Campus with Gibbet Hill Campus and is signposted.

Accommodation Information

If you have registered for the 4-day Data Mining with iPlant workshop, 3 nights accommodation is included in the cost of your registration fee.

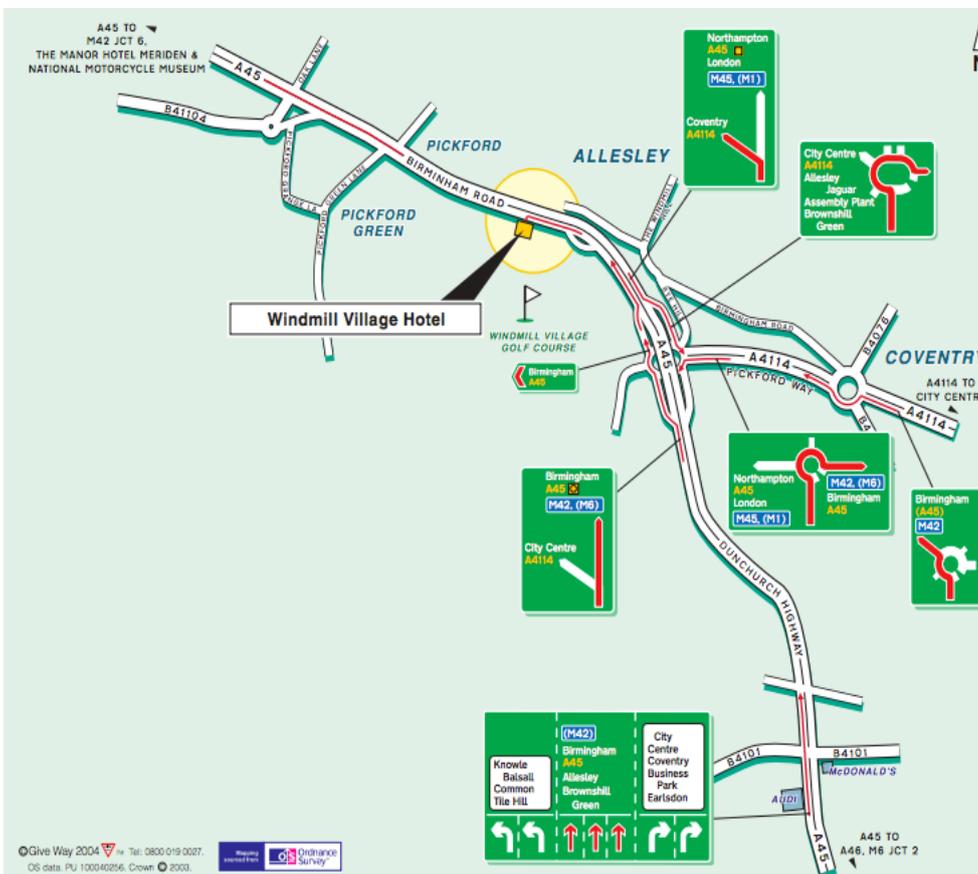
Hotel address

Best Western Windmill Village
Hotel and Golf Club
Birmingham Road
Allesley
Coventry
CV5 9AL
UK
Tel: 02476 404 040
Web: www.windmillvillagehotel.co.uk



Getting here and away

The Windmill Village Hotel is situated on the westbound carriageway of the A45. It is just 10–15 minutes by road from Birmingham International Rail Station, and 10–20 minutes from Coventry Rail Station.



It is a 10-minute walk from the hotel to Allesley Village, where you can take the 7 or the 900 bus to Coventry City Centre.

To return from Coventry, take the 900 bus and alight at the bus stop directly in front of the hotel. You can also take the 900 from this stop to go to Birmingham.

Visit www.travelcoventry.co.uk for more information.

Coach transport between the hotel and the University has been arranged for you – see page 6.

Accommodation Information

Your accommodation

A room has been booked for you for the nights of 17, 18 and 19 September. Please note that if you require accommodation for any other nights during your stay, you should arrange this yourself.

Your room will be a standard double room for single occupancy on a bed and breakfast basis. Payment for this has been arranged on your behalf, but please note you are responsible for paying any additional hotel charges (e.g. room service, pay-per-view TV, internet, bar charges etc.) when you check out.

Hotel facilities

The 3-star Best Western Windmill Village Hotel and Golf Club boasts 105 newly refurbished bedrooms that overlook an 18-hole golf course. The hotel also has a 20m swimming pool, a whirlpool, steamroom, sauna and gym facilities that are available free of charge to hotel guests.

Free parking is available for hotel guests. Free WiFi is available in public areas of the hotel, while wired internet is available at extra charge in the hotel bedrooms.

Check in is from 14:00 and check out is at 11:00. Please ensure that you have checked out of your room before departing for the final day of the iPlant workshop.

Dining

Breakfast is included in your room rate and is served from 06:30 until 09:30 in The Fairways restaurant at the Windmill Village Hotel.

Lunch and refreshments will be provided at the University of Warwick during the iPlant workshop. However, to help keep costs low, dinner is not included. If you wish to take an evening meal, there are two restaurants at the Windmill Village Hotel:

The Fairways restaurant – www.fairways-restaurant.co.uk – offers fine dining and boasts views across the golf course.

The Cellar Bar – www.cellar-bar.co.uk – offers more informal drinking and dining.

Some other nearby dining options include Mumbai Blue (www.mumbaiblue.com), an Indian restaurant which is just 2 minutes drive from the hotel in the westbound direction on the A45. In the other direction, towards Coventry, is The Elms, a Harvester restaurant serving good value pub-style meals. Venture into Coventry or Birmingham and you will find a wide range of bars, restaurants and cafés to suit all tastes.

Before you arrive

To help speed up the administration process on Day 1, please register an account with iPlant in advance of the workshop, if you have not already done so. To do this:

1. Using the **Mozilla Firefox** internet browser, visit www.iplantcollaborative.org and click 'Login or Register' in the top right hand corner of the screen.
2. On the next screen, click 'Register', under 'New User?' and complete the form.
3. After submitting the form, you will be sent a validation email. Click on the link in the email to validate and activate your iPlant account.

Once your iPlant account is activated, you will have automatic access to many of its apps and services. However, during the workshop we will be using the Atmosphere app, for which you will need to request permission to use. To do this:

1. Log in to the iPlant website with your username and password.
2. On the Apps and Services page, in the 'Atmosphere' box, click 'Request Access'.

Access is not always granted immediately; you will be sent an email to confirm when your access to Atmosphere has been activated.

Arrival and registration

On your arrival on Day 1, please make your way to the School of Life Sciences reception to sign in. The GARNet team will meet you, register your attendance and present you with your visitor's badge. For security reasons, please wear your badge at all times on the University premises.

Catering

A buffet lunch will be served each day, and tea, coffee and light refreshments will be available at intervals throughout the workshop. Vegetarian, gluten-free and halal diets will be catered for, and foods containing shellfish and nuts will all be suitably labelled. If you have not already informed us of any dietary requirements or if you have any other catering needs, please inform a member of the GARNet team as soon as possible. There is a café on site if you wish to purchase additional drinks, snacks or meals.

Computer access

The workshop will take place in the School of Life Sciences' state-of-the-art Interactive Computational Learning (ICL) suite, which houses 120 iMac stations. Delegates bringing their own data to be examined as part of the data analysis workshop sessions on Days 3 and 4 should bring these along on a USB memory stick, an external USB hard drive, or be able to access them from an online cloud drive. Please note that no food or drinks are permitted in the ICL suite.

Disabled access

The Data Mining with iPlant workshop will take place on the first floor of the School of Life Sciences building, but is accessible for wheelchair users. Please ask a member of the GARNet team if you require any assistance during your visit.

Smoking

Please note that smoking is not permitted within 3m of any University buildings.

Twitter

If you are tweeting about the workshop, please use the hashtag #garnetiplant.

Contact GARNet

If you have any questions about the workshop or require any assistance, please contact Charis Cook (charis@garnetcommunity.org.uk), or Lisa Martin, (lisa@garnetcommunity.org.uk). Our telephone number is 02476 573 293.

After the workshop

If you need help using the iPlant cyberinfrastructure after the workshop, please use the 'Ask iPlant' feature on the iPlant website. This is a community forum-style user help area where both iPlant users and iPlant staff can collaborate to answer questions and provide advice. 'Ask iPlant' can be found on the Apps and Services page when you log in to the iPlant website.

GARNet welcomes your feedback. If you have any comments or compliments about the workshop, or suggestions on how we could improve similar activities in the future, please email them either to charis@garnetcommunity.org.uk or lisa@garnetcommunity.org.uk.

GARNet



GARNet supports UK Arabidopsis researchers and the wider plant science community by helping them to remain competitive and productive at the national and international level. Via its committee of elected members, GARNet does this by helping researchers to make the best use of available funding, tools and resources.

The core GARNet team comprises:

Jim Beynon	Principal Investigator
Ruth Bastow	Coordinator
Charis Cook	Communication and Liaison Officer
Lisa Martin	Research and Engagement Officer

For more information please see the GARNet website at www.garnetcommunity.org.uk, and the GARNet blog at <http://blog.garnetcommunity.org.uk>. You can also follow us on Twitter @GARNetweets and @weedinggems.

iPlant



iPlant Collaborative

iPlant is a community of researchers, educators, and students working to enrich all plant sciences through the development of cyber-

infrastructure – the physical computing resources, collaborative environment, virtual machine resources and interoperable analysis software and data services – that are essential components of modern biology.

Your iPlant workshop leaders are:

Naim Matasci
Dan Stanzione
Matthew Vaughn
Jason Williams

For more information about iPlant, please see www.iplantcollaborative.org. Follow iPlant on Twitter @iplantcollab.

Thanks also to **The Hartree Centre** and **The Genome Analysis Centre**.

2013 Autumn Meeting

From Genes to Shape

Thursday 7 – Friday 8 November. The Royal Society, London

How does digital information in a linear DNA sequence lead to the dynamic shape of individual cells, such as pollen tubes and neurons, and growing multicellular structures such as flowers or wings? Recent advances in genetics, imaging, cell biology, biophysics and computational biology are being used to address this problem at a mechanistic level for the first time.

This two-day meeting brings together scientists working at the interface of these disciplines to unravel the mechanisms underlying shape generation from the subcellular to the tissue scale. Topics include cytoskeleton dynamics, cell polarity, growth and deformation of cell sheets and formation of primordia and appendages. The meeting will highlight unifying principles by ranging over microbial, plant and animal systems.

Abstract submission deadline is 5 September 2013
Additional speakers will be selected from abstracts

Speakers include

Andreas Bausch (University of Munich)
Anja Geitmann Université de Montréal
Ray Goldstein University of Cambridge
Verónica Grieneisen John Innes Centre, Norwich
Jeremy Green (King's College, London)
Max Heiman Harvard Medical School
Frank Jülicher Max Planck Institut, Dresden
Stan Leibler Princeton and Rockefeller Universities
Sophie Martin University of Lausanne
François Nedelec (EMBL, Heidelberg)
Benedicte Sanson University of Cambridge
James Sharpe EMBL-CRG, Barcelona
Jan Traas ENS, Lyon

Meeting organisers

Enrico Coen and Buzz Baum

Register by 7 October 2013 to take advantage of our early bird discount, visit www.genetics.org.uk for details

for registration, visit
www.genetics.org.uk

Registration ends 1st November 2013





Crop Research Conference

Knowing your enemy – the future of crop protection



Wednesday 25 September 2013
Queen Elizabeth II Conference Centre, London

Whether it is a pest, weed or disease, knowing your enemy is the focus of the AHDB Crop Research Conference

Featuring

– **Advances in genomics**

Professor Lin Field, Professor Paul Birch, Dr Rick Mumford

– **Population and evolutionary biology**

Professor John Lucas, Dr Paul Nicholson, Dr Paul Neve, Dr Stephen Parnell

– **Lessons from ecology**

Professor Allan Downie, Dr Alison Karley, Dr Jurriaan Ton

– **Exhibition area**

Student poster competition and displays from leading research centres

Book your place:

Web: hgca.com/events

Email: events@hgca.ahdb.org.uk

Phone: 024 7647 8724

Ticket prices (inc VAT)

Standard: £150

Levy payers: £100

Students: £80

Find out more hgca.com/research



Delivered by

HGCA

