

**The Official Newsletter of the Queensland Branch
of the Australian Institute of Medical Scientists**

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AIMS Qld Branch Committee Members 2015/2016

Chair: Anne-Marie Christensen

Treasurer: Christine Knauth

Secretary: Yun-mi Nguy

Committee Member: Indu Singh

Committee Member: Kathryn Eckersley

Committee Member: Steven Weier

Committee Member: Jacqueline Shaw

Committee Member: Alex Weng

Student Members: Rebecca Geary & Callum Bradshaw (QUT)

Sabina Ahmatovic & Sam Nozuhur (Griffith University)

For all branch enquiries, please contact queenslandaims@gmail.com

Chair's Report

Welcome to the Queensland AIMS Branch new and improved newsletter 'The Queensland Analyser'. Over a number of months the committee has been working to bring this together to spread the word about what has been happening for AIMS in SEQ. We would particularly like to thank 2015 QUT graduate, David Van Der Heide for designing our new cover page and logos, and our student committee members Rebecca, Callum, Sabina and Sam for developing a template we can use for future editions.

As you read on, you'll see it's been busy 12 months with event reports from combined meetings held with the Histotechnology Group on 'Lymphoma' and AACB Branch on 'Insulin Antibodies in Type 1 Diabetes and Antiphospholipid Syndrome' as well as some photos from the Christmas Quiz held at the Botanic Bar. Again, we congratulate the 'Chemistry Queens' for winning on the night. The annual quiz is turning into a highlight of our year's activities and gets more competitive each year. Pencil 2016 in now!

In this edition we also congratulate and recognise the academic achievements of our future medical scientists with reports from the QUT and Griffith University Student Awards Nights. The Branch has been a long-time sponsor and supporter of students studying medical science in SEQ and recognises the importance of highlighting and promoting their success.

The Branch is also pleased to announce that in conjunction with the Queensland Tropical Division, and with the support of our key sponsors Trajan Scientific & Medical and ANZ Bank, we held the inaugural "AIMS Queensland Medical Science Awards" presentation night on Thursday the 14th of July. The Medical Science Woman of the Year Award was proudly supported by the Queensland Government's Advance Queensland Initiative, with awards presented by the Minister for Science and Innovation, Hon. Leeanne Enoch, and the Queensland Chief Scientist Dr Geoff Garrett. The Awards were also opened by the Queensland Health Minister the Hon. Cameron Dick. We will report on the winners in the next edition, but if you are keen to find out more check the AIMS Facebook page.

Looking ahead to the last half of the year there are a number of meetings ending with the annual quiz. We look forward to seeing you all at our events and the upcoming National Meeting. For now, best wishes and enjoy!

Anne-Marie Christensen

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Queensland Branch Events Update

AIMS & HQC Combined Scientific Meeting

Last year on Wednesday September 16, AIMS and HQC held a combined scientific meeting at the Pineapple Hotel, with the major focus being lymphoma. There were very interesting presentations given by Dr Joel Collins and Dr Linda Shen, with informative topics including FBE, IHC, and FISH results associated with lymphoma. The event was a raging success, with more than fifty people from differing scientific disciplines attending what was described as the best meeting in years. AIMS and HQC look forward to this year's meeting, which is expected to host even more people.



AIMS & AACB Combined Branch Meeting

The AIMS-AACB combined Queensland branch meeting was held on Tuesday 13th of October, bringing together the two juggernauts of Medical Science professional associations.

The night saw Dr Tony Huynh present a biochemistry focused piece on Insulin Antibodies in Type 1 Diabetes; several different testing perspectives, including immunological and biochemical, were explored in relation to the clinical presentation of diabetes patients with insulin antibodies. The presence of insulin antibodies are common in patients treated with insulin, though they are usually not clinically significant. However the presence of insulin antibodies can indicate severe insulin resistance in patients and also insulin allergies; the importance of immunological testing (IgG vs. IgE titres) and biochemical testing (insulin, glucose among others) in conjunction with the clinical presentation was discussed in such cases.

Dr Marc Ellis from QML Pathology then presented a haematology focused piece on Antiphospholipid Syndrome. This hypercoagulable state is caused by the presence of phospholipid antibodies, often found to be secondary to other autoimmune conditions such as SLE. APS patients often present with DVT or other thrombosis, often at a young age, and a standard thrombophilia screen will usually be the first step to diagnosis. Dr Ellis also utilised his clinical experience with APS patients to provide further insight about different treatment options available and the role laboratory staff play in monitoring the anticoagulants of these patients.

All in all it was another successful evening for AIMS and AACB members, expanding the knowledge and understanding of all attending. We look forward to the next joint meeting!

2015 Travelling Orator - Geoff Magrin

From September 16th to 18th last year, the AIMS nationally selected scientific expert Geoff Magrin toured and presented at regional Queensland Health facilities as the 2015 AIMS Traveling Orator.

Formerly the Principal Scientist in Haematology at Alfred Hospital in Melbourne, Geoff's presentation the "Art of Transfusion and Health Benefits for Society" provided a unique insight into transfusion medicine in modern healthcare.

Geoff travelled to Toowoomba Base Hospital and Bundaberg Base Hospital in regional Queensland, where his presentation was streamed live to six remote health facilities thanks to Pathology Queensland (Dalby, Warwick, Kingaroy, Roma, Charleville and Longreach).

Geoff's informative presentation had an inclusive feel, with the content appropriate for both scientific staff and members of the wider clinical team who attended. Both Pathology Queensland locations were thrilled to host Geoff and look forward to again participating in the AIMS Traveling Orator program.

Christmas Quiz

The Queensland Branches of AIMS and AACB joined for the Annual Christmas Quiz Night. The 'Chemistry Queens' were the winners of the movie tickets, and '10 Nuggets for \$2.95' took out the Album Cover quiz. It was a great night and we're looking forward to this year's quiz.



2016 AIMS AACB Christmas Quiz

Tuesday 29 November

Griffith University Medical Sciences Student Award Night

Griffith University School of Medical Science recognised outstanding achievement of the graduates of the Bachelor of Medical Laboratory Science program at the fun filled evening with their family, friends and teachers on 17th December 2015 in QT Hotel, 7 Staghorn Ave, Surfers Paradise, Gold Coast, Queensland. The formal graduation awards night was followed by a boat cruise to celebrate the end of year graduation party on 'The Lady' from Southport to Surfers Paradise harbours.

The following awards were presented:

- DUX of the 2015 MLS Graduating Class – Ms Shannen Kira Fentiman.
- Transfusion Science, Clinical Microbiology and Research Project top grades were also obtained by Ms Shannen Kira Fentiman.
- Haematology and Histopathology top grades were achieved by Ms Sabrina Belen Avendano.
- Clinical Biochemistry top grades were received by Ms Heather Therese Shrimpton.
- Ms Alyce Dunn was most commended with highest grades in assignments of Clinical placement.

The Graduation Award Ceremony

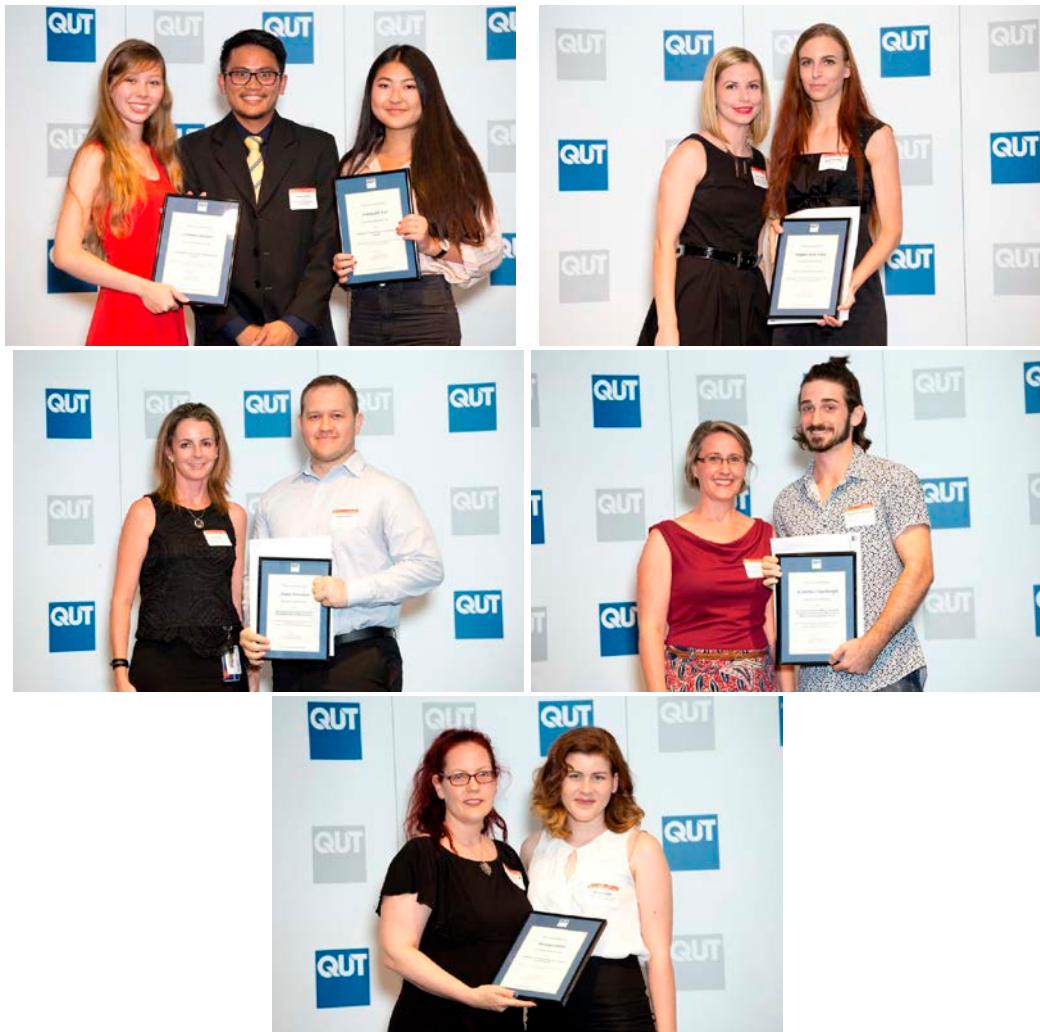


Graduation party boat cruise



QUT School of Biomedical Sciences Student Award Night

The QUT School of Biomedical Sciences Awards Ceremony was held on Wednesday the 24th of February in the picturesque Room Three Sixty with its panoramic views of the city. The evening is the highlight of the annual academic calendar, as it is the time we can recognise and acknowledge student success and achievement. It was well attended by academic staff and representatives from various professional organisations and the in vitro diagnostic industry. AIMS sponsored four awards on the night. Martyssse Rodgers was awarded the James Vincent Duhig Prize for Histopathology Prize, Sam Maksoud the S. Walsh Memorial Prize for Blood Banking, James Newman the IM & MJ Makerras Prize for Parasitology Prize and Nicholas Oxenburgh the JR Saal for Outstanding Performance in Medical Laboratory Science Prize. All the recipients were deserving winners and highlight the ability of the next generation of Medical Laboratory Scientists.



Upcoming Events for the Remainder of 2016

July

- The **Queensland Medical Science Awards** presentation night was held on Thursday 14 July in Brisbane. For more information on the winners and photos from the night check the AIMS Facebook page.

August

- The AIMS Queensland Branch will be hosting another **Combined Scientific Meeting with the Queensland Histotechnology Group** on **Tuesday 30 August** at the Pineapple Hotel. The theme this year will be the '*Pathology of Malabsorption Disorders*'. Keep your eyes open for more and the chance to RSVP.

September

- The national **AACB AIMS Combined Scientific Meeting** will be held at the Brisbane Convention & Exhibition Centre from **13-15 September**. The theme this year is 'Moving into Molecular' and more information can be found on page 9 and the AIMS website.

October

- The **Combined Annual Scientific Meeting with the Queensland Branch of the AACB** is set for **Tuesday 11 October**, at the Regatta Hotel. Keep your eyes open for more and the chance to RSVP.

November

- The **Annual AIMS & AACB Christmas Quiz Night** has been booked for **Tuesday 29 November** at the Botanic Bar, QUT Gardens Point. Stay tuned for updates and the opportunity to register your team!

For more information on other AIMS events check...

<http://www.aims.org.au/services/related-meetings-webinars>

General News Update

ABC Radio, Evenings with David Curnow

Your Story – Robyn Wells – President of the Australian Institute of Medical Scientists talks to David Curnow about her role as first female president in 101 years and exactly what happens to your blood and other bodily fluids when they are sent away for pathology testing.

Listen at <http://blogs.abc.net.au/queensland/2015/10/monday-19th-october-2015.html>



The Scientific Meeting will be held in the Brisbane Convention & Exhibition Centre, from 13-15 September 2016. The meeting combines the AACB 54th Annual Scientific Conference and the AIMS 46th National Scientific Meeting.

The Conference theme is 'Moving Into Molecular' and promises to be an exciting meeting with an outstanding program of keynote international and local speakers, a number of oral and poster opportunities, a great social program and an extensive industry exhibition. The preliminary program is at <http://www.aacb.asn.au/eventsinfo/aacb-aims-scientific-program>

EXPERIENCED SCIENTISTS - WE NEED YOUR HELP

Do you have any advice for students and new grads? The AIMS Qld Branch Student Representatives are creating a flyer for students and new graduates and are seeking words of wisdom and feedback from professionals in all disciplines of the medical science industry. We are putting together a survey of questions for industry professionals, the answers of which would assist students and new graduates in their decisions regarding their potential career paths and options. We would greatly appreciate your involvement and feedback, and you can remain anonymous if you wish.

Email Callum or Rebecca at qldaimssurvey@gmail.com for more information.

AIMS and IBMS Announce Global Agreement

30th March 2016

The Australian Institute of Medical Scientists (AIMS) and the Institute of Biomedical Science (IBMS) based in the UK, today signed a Memorandum of Understanding that will strengthen the partnership between the two organisations for the benefit of members, the global biomedical science community and the profession.

The IBMS is the professional body for biomedical scientists in the United Kingdom with over 20,000 current members. IBMS promotes and develops the role of biomedical science within healthcare by supporting biomedical scientists in their education and training, improving standards of practice, representing the profession and working with organisations to improve laboratory service. www.ibms.org

AIMS President Robyn Wells and IBMS President Ian Sturdjess CSci FIBMS confirmed that the agreement is an exciting step to support our international focus and partnerships.

Jill Rodney, Chief Executive Officer of IBMS said: "The partnership with AIMS will ensure that the reach and relevance of biomedical science is felt beyond the two organisations and will facilitate recognition for laboratory professionals globally."

"This agreement follows a successful meeting in London that is the forerunner for closer ties and collaboration" said Ms Wells and Mr Sturdjess.

Mr Edward Fraser, Chief Executive Officer of AIMS, said that the vision of the agreement is to strengthen the profession in two leading nations in the medical science field and ensure global cross fertilization of ideas to improve health outcomes.

The agreement highlights a number of exciting areas for exploration, including membership, qualifications and the sharing of good practice guidance.

"We are pleased to be working with IBMS and look forward to our global partnership". Mr Fraser said.

AIMS joins International Federation of Biomedical Laboratory Science

29th May 16

The Australian Institute of Medical Scientists (AIMS) has been accepted as a new member of the [International Federation of Biomedical Laboratory Science \(IFBLS\)](http://www.ifbls.org) announced the global President of the IFBLS, Mr Tom Stowe.

“We are very pleased that AIMS as a leading national professional body in Australia have now committed to joining over 32 countries representing approximately 140,000 members that provide biomedical laboratory services across the globe”, President Stowe said.

“The benefits for AIMS members and Australia will include access and contribution to international policy development, global events and publications’, he said.

AIMS Chief Executive Mr Edward Fraser highlighted that joining the IFBLS is an exciting step in enhancing international relations and cross-fertilisation of ideas for the benefit of members and the global biomedical science community.

“AIMS is working on options to better promote medical diagnostic science professionals and the benefits of their work throughout Australia, and can learn from the successes of other countries in this regard”, Mr Fraser said.

“We recognise being the quiet achiever is not helping our profession and in the absence of national government quality workforce planning data and without professional regulation we need to leverage global support to help ensure continued excellence in the sector”, he said.

IFBLS is a global organisation of national societies working to increase opportunities for the development of medical science laboratory professionals through education and partnership. IFBLS promotes the exchange of ideas and the active participation of biomedical laboratory professionals through seminars, research and educational forums.

www.ifbls.org

Note on Student Membership Application Forms

The one page form is currently for full-time students only and has to be signed by the Course Coordinator or an officer of the university. The two-page form is for all other applicants. Both forms are available at <http://www.aims.org.au/membershipinformation/join>

History of AIMS

The History of AIMS is now complete. Written by Ian Stanger, Bruce Munro, Jim Ruxton, Emeritus Prof. Tony Webber, Tom Bell and Len Lawler, the book is a detailed and rich recount of the history of AIMS in the past 100 years.

The book is [available for purchase](#) in the online store.

AIMS members have access to the [electronic version](#), and can be accessed in the Members Centre of the AIMS website.



The **APACE (Australasian Professional Acknowledgement of Continuing Education)** scheme is a voluntary programme that recognises continuing education, formal courses and a wide range of professional activities which contribute to your professional growth.

The healthcare industry is undergoing rapid change. We are expected to keep our knowledge and skills up to date to enable us to perform to the highest professional standard. The **APACE** scheme provides a method by which your professional activities are recognised.

APACE has been approved by the **New Zealand Medical Laboratory Science Board** as a re-certification programme for **New Zealand Medical Laboratory Scientists**.

APACE has been approved by the **Royal College of Pathologists Australia (RCPA)** as a continuing professional development recognition programme for Fellows of the Faculty of Science.

For more information and to enrol visit <http://www.aims.org.au/apace>

'5 minutes with...' *Christine Knauth*



Where do you work (and/or study)?

I'm currently a lecturer in Medical Science at QUT

What future development/s direction/s in the industry are you excited about?

Oooh, how immunotherapies with personalised and precision medicine might change medical treatment

What do you like about your current position?

Witnessing the students' 'lightbulb moments' and learning - it's never-ending 😊

What makes you smile?

Dancing

What has been your favourite holiday?

Tasmania - so much to see, do, walk, explore, watch... and eat

Which 3 people, alive or dead, would you have around for dinner?

Marie Curie, Pablo Picasso and Keith Richards

What's your guilty pleasure?

Corn chips

Case Study

Clinical History & Laboratory Results

A 48-year-old male without significant medical history presented to his general practitioner with recent onset of fevers. A FBE revealed marked anaemia (Hb 55 g/L) and marked thrombocytopenia (PLT $15 \times 10^9/L$) with moderate leucocytosis (WCC $19.5 \times 10^9/L$). Erythrocyte morphology on the peripheral blood smear showed a left shift with promyelocytes and schistocytes (Figure 1A and 1B), indicative of disseminated intravascular coagulation (DIC). A follow up bone marrow biopsy, flow cytometry and genetic testing were performed.

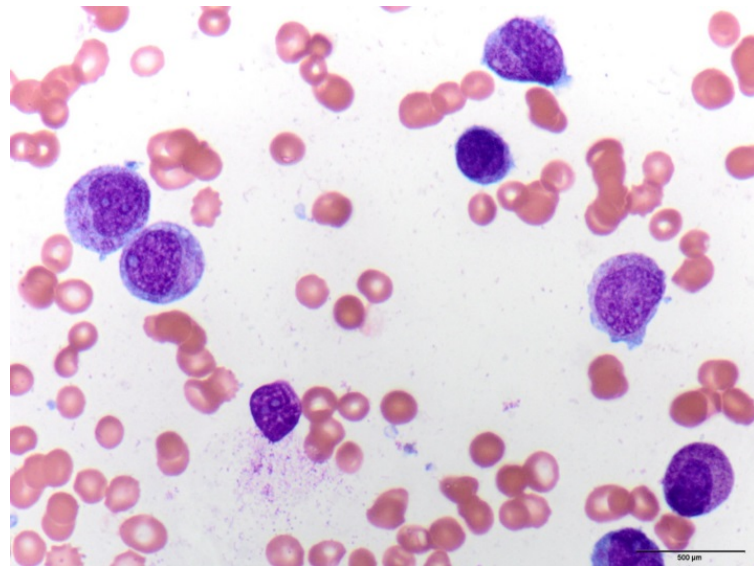


Figure 1A: Blast cells and promyelocytes (peripheral blood)

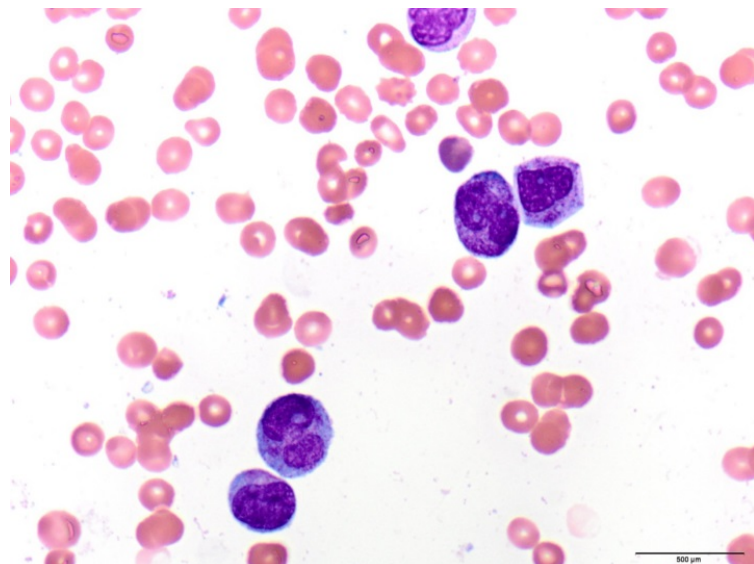
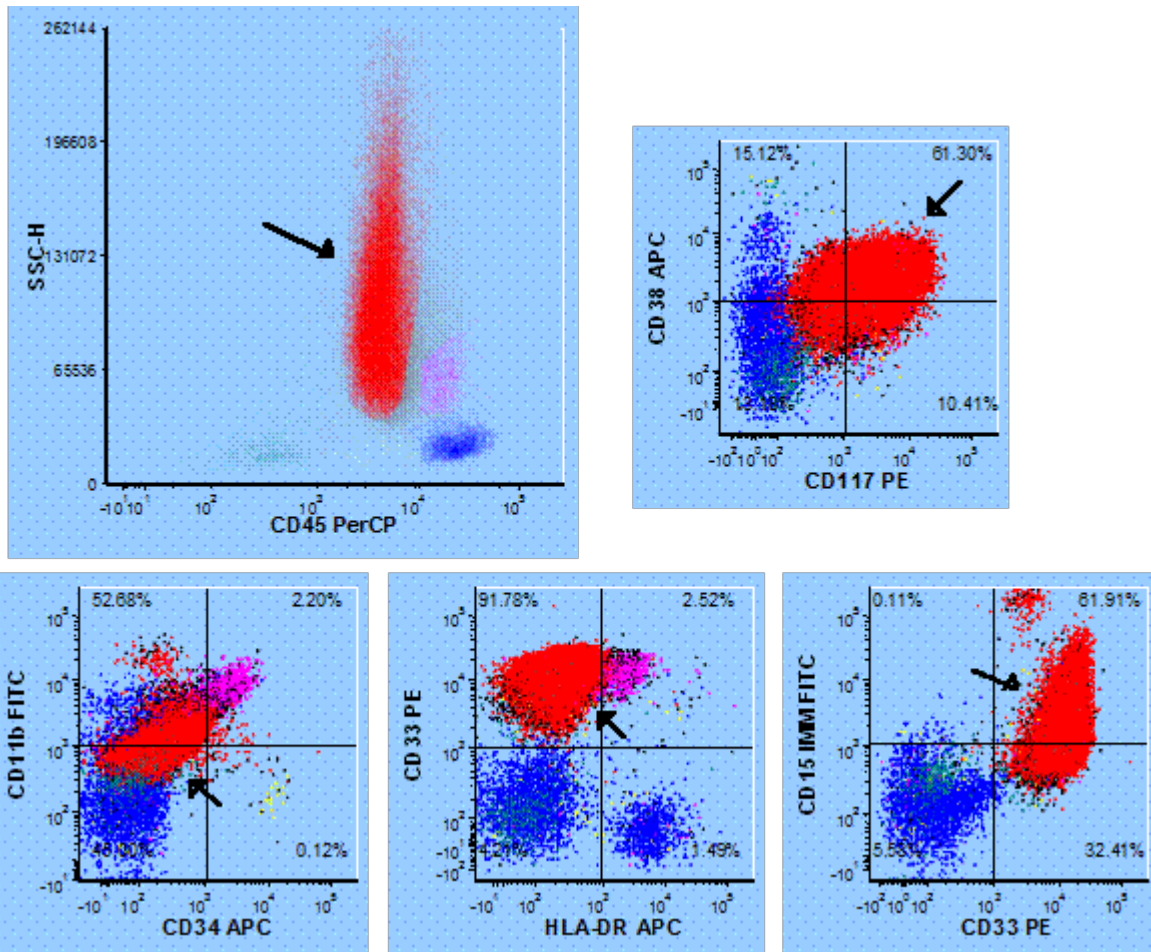


Figure 1B: Promyelocytes (peripheral blood)

Flow cytometric analysis demonstrated a large number of blasts expressing bright CD117 and CD33, but lacking co-expression of CD34 and HLA-DR. Subsequent cytogenetic analysis showed a normal karyotype, and FISH studies were normal; however, due to the flow cytometry and morphology findings, molecular study by PCR amplification was performed and demonstrated the presence of a PML-RARA fusion transcript.

Diagnosis: Acute promyelocytic leukaemia (APML/APL) with DIC



Discussion

Acute promyelocytic leukaemia is one of the true haematologic emergencies and must be recognised and treated quickly to avoid the often fatal complication of disseminated intravascular coagulation. Because of this, treatment should not wait for cytogenetic analysis to confirm the presence of the characteristic *t*(15;17) abnormality.

Flow cytometric analysis can provide important clues for the diagnosis, specifically the presence CD117/CD33 positive myeloblasts that lack HLA-DR, CD34 and CD15.

The majority of APL cases have the $t(15; 17)$, that results in PML/RARA fusion protein. This fusion plays a central role in leukaemogenesis and is a target for treatment with all-trans retinoic acid (ATRA). While conventional cytogenetic identifies the translocation in 70-90% of patients, FISH is positive in nearly all cases (> 98%). In a small subset of patients, however, the karyotype and FISH are negative, usually in patients with cryptic/masked translocations (often submicroscopic insertions). Additionally, some patients have alternative translocations, such as $t(11; 17)$ and $t(5; 17)$, but these should be identified during routine karyotyping.

Clinicians should be promptly alerted of a diagnosis of APML/APL and initial diagnosis should be based on the morphologic and flow cytometric findings (CD117 positive, CD33 positive, CD34 negative, HLA-DR negative or CD15 negative), as karyotype and FISH are not available at the time of initial diagnosis. Despite the negative karyotype and FISH, the patient was diagnosed with APML/APL and treated rapidly with ATRA. Subsequent RT-PCR testing was positive for *PML-RARA*, supporting the diagnosis.

Adapted from: Ying Li, MD., PhD. 'Case Of The Month: Hematopathology'. *University of Florida Pathology Laboratories*, March 1, 2014, available at <http://pathlabs.ufl.edu/about/case-studies/march-2014-case-of-the-month-hematopathology>