



## From the desk of the Chairman (Rob Gregory)

### 'Tis not so sweet now as it was before

The manufacturer of Lucozade® has announced its intention to slash the glucose concentration of the 'energy drink', beloved of hospital visitors. This is important to us for two reasons – first the volume of Lucozade® for a 75 gram OGTT will change, and second the volume recommended to treat hypoglycaemia will need to be revised. The exact changes have yet to be confirmed, and ABCD will send the detail as soon as possible. An unforeseen consequence of the sugar tax!

### I did like to be beside the seaside

The autumn meeting in Brighton was excellent and a credit to Russell Drummond, our Meetings Secretary. No song titles, but universally high quality and entertaining presentations. The ABCD debate returned refreshed after its rest, and Amanda Adler's robust rebuttal (including totally justified expletives) of Miles Fisher's proposition that the 'NICE T2 Guideline is out of date, lacks patient focus and is unfit for purpose' won over some of the audience, although the majority still supported the motion. A meeting report will feature in *BJD*, but congratulations to Samiul Mostafa, winner of the £1000 Research Travel Award for the best abstract 'Estimating the potential risk reduction of type 2 diabetes mellitus (T2DM) complications if systolic blood pressure (SBP) targets were to be lowered'.

### A seasonal quiz

On the subject of endocrinology, Fahmy Hanna is keen to know how we all manage adrenal incidentalomas (a growing problem). If you can spare the time to complete this short survey, he would be very grateful. The results will feature in his presentation at our spring meeting. <https://www.surveymonkey.co.uk/r/LY9N9C3>

### It's never too soon

ABCD is pleased to sponsor the 2nd National Undergraduate Endocrinology Conference

organised by the Edinburgh University Endocrinology Society to be held on 28 January 2017. In return I have suggested they consider changing their name to the Edinburgh University Diabetes and Endocrinology Society.

### Specialise in Diabetes and Endocrinology – you won't regret it

We all recognise that our beloved specialty is not as attractive a career option as it once was, and we could all probably agree why. The RCP spotlight is on our specialty in January and Peter Winocour is starring in an inspirational video to tempt young doctors to follow in our footsteps. Muna Nwokolo (Chair of YDEF) and I wrote to Derek Gallen, Director of UKFPO, commending diabetes as an excellent specialty for foundation doctors, offering experience in primary, community and secondary care. He has agreed to forward our suggestion to the Foundation School Directors (FSD) who have flexibility to change posts in programmes if they wish. Feel free to lobby your local FSD if you could create an appealing diabetes post.

### A special offer

The ABCD committee has approved a special offer of a year's free membership for all new SpRs joining the association in 2017. This is a saving of £40 currently.

### Community of Practice

Asif Ali (Chair of the SAC) has been working his way through the specialist curriculum and has reached community diabetes. If you feel you have ideas about what this element of the curriculum should contain and how it should be taught, Asif would be pleased to hear from you.

### Financial disincentives embedded for two years

The statutory consultation on the NHS Tariff 2017–19 has now closed. The ABCD response to the earlier stakeholder consultation is included under JSC Endocrinology and Diabetes, RCP London in the documents now in the public domain. Our strong opposition to the original proposal for a single price for all

outpatient new and follow-up appointments led to a revised but probably even worse proposal that adds 20% to the price of a new diabetes outpatient episode, paid for by a reduced price for follow-ups. It could have been worse as the initial suggestion was for a 30% 'enhancement'. The motivation is said to be to reduce inappropriate follow-up appointments, but I believe it will both deter appropriate new referrals and encourage complex and expensive cases to be discharged inappropriately. This should encourage you to negotiate local payment systems for diabetes, with capitation-based payments or year of care payments as examples. As for the rest of the document, it seems the innovation tariff will not help improve access to continuous glucose monitoring.

### Situations vacant

The RCP London relies on a network of Regional Specialty Advisors (RSAs) to scrutinise job descriptions for consultant posts, assist with appointments to advisory committees, and contribute to the process of appointing Fellows. I am pleased that ABCD is the first point of contact for nominating new RSAs, and this has worked reasonably well, but there are some vacancies now and in the near future as present incumbents retire. Our secretary, Dinesh Nagi, will be sending information separately about opportunities across England, but I would urge members to volunteer for these important roles.

### Where do we stand on ...?

The latest ABCD position statement is on ... 'the risk of DKA associated with the use of SGLT-2 inhibitors'. Thanks to Umesh Dashora and co-authors for this practical summary. [http://www.diabetologists-abcd.org.uk/Position\\_Papers/ABCD\\_DKA\\_SGLT2.pdf](http://www.diabetologists-abcd.org.uk/Position_Papers/ABCD_DKA_SGLT2.pdf)

### Just grow up!

While on the subject of DKA, I have been contacted by a member expressing concern that when 16–18-year-olds require admission they go to an adult medical unit, but guidance recommends their DKA is managed according to the BSPED paediatric DKA protocol. Is this justified and safe, as adult physicians (you know

what I mean) are familiar with the adult DKA protocol, but generally not with the paediatric protocol? We have decided to convene a meeting soon to thrash this out and hopefully to produce clarification and advice on this matter.

### '(Off) to Parliament he shall go'

I attended two parliamentary receptions last month. The first was in honour of ABCD stalwart Alan Sinclair who spoke about the work of his organisation, Diabetes Frail, and the particular needs of elderly frail people with diabetes who often have multiple co-morbidities. I am pleased that Alan is representing us on a multi-stakeholder group that will produce guidance on this topic. The second was the launch of the APPG for Diabetes Report 'Leveling up: reducing variation in diabetes care'. ABCD was represented at several of the meetings held to collect evidence for the report. I was particularly pleased to see the recommendations for integrated IT systems, timely referrals for specialist support, and for clear pathways for improving access to technologies such as continuous glucose monitoring and flash glucose monitoring. <https://diabetesappg.files.wordpress.com/2016/11/appg-for-diabetes-report.pdf>

### Nothing succeeds like succession

Please look out for nomination papers for ABCD Officer elections. Your current chair will step down at the spring meeting, and it would be good to have someone to pass the baton to!

### Sustainability and Transformation Plans (STPs)

Those of you working in England should know what your local STP 'footprint' is planning for your area, but do you? If not, it might be because it is still confidential. The King's Fund is keeping a close eye on STPs as they develop and is publishing regular papers on the subject. A good introduction is at <https://www.kingsfund.org.uk/topics/integrated-care/sustainability-transformation-plans-explained>

### The author's name was Carter ...

I refer of course to the independent report 'Operational productivity and performance in English NHS acute hospitals: Unwarranted variations'. "That will gather dust on the bookshelf" I hear you cry, but no, NHS Improvement has started to go after the estimated £5bn of efficiency savings identified by his lordship. Medical specialties are about to come under

the microscope. If this sort of thing inspires you, look out for an advertisement in the New Year for a consultant to be the national Quality and Efficiency Lead for our specialty. There is potentially some crossover with other planned work streams such as outpatients.

### Attention Santa's helpers

Stella George, Workforce Co-ordinator, has moved mountains to transform the annual specialty workforce survey from the traditional paper-based form to an electronic version. If you haven't already done so, please complete yours via this link

<https://www.rcpworkforce.com/se/253122AC3943CD2508D41224A7BAEF1606>

### Patient safety again

I would like ABCD members to reinforce in their own hospitals the recent Patient Safety Alert about the risks of drawing insulin from insulin pens and pen cartridges into syringes before administration. The increasing use of high strength insulins will add to the risk.

### Type 1 diabetes – breaking news!

Finally, you will know that I made promoting the quality of care for people with type 1 diabetes a clinical priority for my chairmanship. I am pleased to say that there are some promising developments. First, the ABCD position statement on standards of care for adults with type 1 diabetes has been taken by Right Care, which has been asked to create an optimal pathway for type 1 diabetes that can be used to help CCGs where data suggest improvement is needed. Second, members of the ABCD type 1 clinical work stream have met twice with Diabetes UK to align our efforts. As a result, I have decided that ABCD will host a UK-wide type 1 diabetes clinical network for healthcare professionals starting in 2017. There seems to be tremendous support for this idea from within ABCD and the trustees, as well as from Diabetes UK, NHS England and colleagues in Scotland, Wales and Northern Ireland. The plan is to have a clinical lead for type 1 diabetes in every department in the UK, and to produce standards that can be audited to facilitate data sharing and benchmarking on a voluntary basis initially. The Scottish experience is that this seems to have resulted in worthwhile improvements. We can develop resources for healthcare professionals that can be accessed from the ABCD website. We will base the network on the framework established for ABCD IPN-UK in the first instance. I plan to assemble a meeting of a core group of interested parties at Diabetes UK PC in Man-

chester. There will be more detail in forthcoming bulletins, but I wanted members to know as soon as possible.

### From the desk of Rebecca Reeve

### STP footprints invited to apply for diabetes funding in the Sustainability and Transformation Fund

NHS England has launched the application process for the transformation element of the Sustainability and Transformation Fund (STF). Sustainability and Transformation Plan (STP) footprint areas have been invited to apply for funding which has been split across four clinical priorities, including diabetes and cancer. £43m will be made available in 2017–19 to help implement the National Diabetes Treatment and Care Programme; £17m of this will be allocated to support the achievement of NICE diabetes treatment targets. <https://www.england.nhs.uk/our-work/futurehhs/deliver-forward-view/stp/tf-call-to-bid/>

### Diabetes Inpatient Care Bill

The Diabetes Inpatient Care Bill, presented by Keith Vaz, will have its second reading on 24 February 2017. The overall intent of the bill is to require the Secretary of State to ensure that all diabetic patients are identified on admission to hospital and have their diabetes condition monitored while in hospital by a specialist diabetes team; and for connected purposes.

### Diabetes Think Tank

The last meeting of the Diabetes Think Tank held on 8 November 2016 focused on STPs and what they mean for diabetes outcomes. As is the case after each meeting, the Think Tank has now published a report (including recommendations) and an infographic that sums up the main information and recommendations. Both are available at: <http://www.diabetesthinktank.org.uk/news/11/25/Sustainability-and-Transformation-Plans>

### Scottish Government announces £10m additional funding to support type 1 diabetes

The Scottish Government has announced a new plan to improve the management of type 1 diabetes, which will be supported by £10m of investment. The funding will be used to provide more people with insulin

pumps and continuous glucose monitoring equipment. It is hoped that the increase in provision will allow more people with type 1 diabetes to better self-manage their condition, improve patient outcomes and prevent complications from developing. <http://news.gov.scot/news/better-treatment-for-type-1-diabetes>

The Scottish Government also announced the 2017–18 Budget, which sets out their commitments for the next financial year. A new national outcome for type 2 diabetes will be created, and £2m will be invested to support those in need of insulin pumps. £100m will also be invested to enhance cancer services, improve patient outcomes and reduce the variation in access to treatment. <http://www.gov.scot/Resource/0051/00511808.pdf>

### How to improve care for people with type 1 diabetes

Type 1 diabetes care in the UK lags behind comparable countries in terms of outcomes. In this heartfelt opinion piece, the authors (Partha Kar and Pratik Choudhary) draw together the experiences of an adult with diabetes, the father of a young person with diabetes and two diabetes specialists, all of whom recognise that many people with type 1 diabetes are missing out on some of the more basic fundamentals of care. They then suggest a new approach to integrate care seamlessly across adult and paediatric departments, treating type 1 and type 2 diabetes as two different conditions. They argue that the opportunity is there if clinicians and commissioners are willing to take the initiative.

<http://www.diabetescareforchildrenandyoungpeople.co.uk/journal-content/view/type-1-diabetes-care-back-to-basics>

### Chief Medical Officer's report suggests diabetes morbidity for those aged 50–70 has increased

The Chief Medical Officer, Professor Dame Sally Davies, has published her annual report; this year it focuses on the health of those aged between 50 and 70. The report looks at key trends in physical health and suggests that, between 1990 and 2013, the number of premature deaths caused by heart disease decreased by 75% for men and 80% for women. However, morbidity due to diabetes increased for men and women, rising by 97% and 57%, respectively. The report concludes that, while there have been major improvements to health-care during this age group's lifetime, more

could be done to ensure their good health in later life, such as reducing the variation in access to, and usage of, services.

<https://www.gov.uk/government/publications/cmo-annual-report-2015-health-of-the-baby-boomer-generation>

### Welsh Government introduces refreshed Diabetes Delivery Plan to improve care and diagnosis

The Welsh Government has published its refreshed Diabetes Delivery Plan, which highlights the importance of early identification and diagnosis of type 1 and 2 diabetes. The aim of the plan is to reduce the rate of increase in diabetes in Wales, as well as the chance of people with diabetes developing complications, and to enable services to meet national standards of care and deliver high-quality care to patients. The Welsh Government has allocated £1m per year of funding to support the delivery of the plan. <http://gov.wales/newsroom/health-and-social-services/2016/161209diabetes/?lang=en>

### 5-year outcomes of the Super Six model of care

The Super Six model of care has been in place for over 5 years with the aim of improving diabetes care in the Portsmouth area by creating uniformity across primary care trusts and providing support for the majority of diabetes management to be in primary care. Five years on, the authors have surveyed patient and practitioner satisfaction of the service provided, and calculated the estimated clinical events avoided as a result of the Super Six model. Patient and practitioner satisfaction is high, and there have been reductions in diabetes-related hospital admissions and vascular events as a result of the Super Six model. [http://www.diabetesandprimarycare.co.uk/media/content/\\_master/4760/files/pdf/dpc18-5-221-6.pdf](http://www.diabetesandprimarycare.co.uk/media/content/_master/4760/files/pdf/dpc18-5-221-6.pdf)

*(Please share your own successful projects with colleagues through BJD news – Umesh Dashora)*

### New research suggests that use of high-intensity statins reduces the risk of premature death

Scientists at Stanford University have published research which suggests that use of high-intensity statins could lower patients' risk of premature heart disease-related death by up to a third. The medical records of more than 500,000 patients in the USA

were analysed in the study, all of whom had conditions which increased the risk of a heart attack or stroke. The results show that the group on high-intensity statin therapy were 29% less likely to die within a year than those on low-intensity statin therapy. The researchers now aim to collect longer-term data on this patient population. <http://jamanetwork.com/journals/jamacardiology/article-abstract/2580531>

### BBC Inside Out investigates the epidemic of diabetes in the NHS

BBC regional current affairs programme Inside Out takes a close look at the diabetes epidemic that is sweeping the country and threatening to overwhelm the NHS.

Chief Executive of Diabetes UK, Chris Askew, says: "As things stand we are certainly looking at a crisis in diabetes which threatens to bankrupt the NHS if we continue with these current trends. I believe we're facing a crisis and we really need concerted action right across society for us to fund more research, provide best possible care and crucially prevent so many cases of type 2 – in future."

Urgent action is vital according to the National Clinical Director for Obesity and Diabetes at NHS England. Professor Jonathan Valabhji says: "We need to stem the tide otherwise we could see a crisis and there are issues of sustainability for the NHS if we do nothing differently."

### New research shows that prescriptions for type 2 diabetes have risen 33% in five years

New research has been published which shows that, over the past five years, the number of prescriptions for type 2 diabetes have risen by one-third (33%) to over 35m items in 2015. It also suggests that there is significant variation in prescribing trends across the country; for example, Newham in London has over double the national average.

[http://www.exasol.com/en/news/?utm\\_source=The%20King%27s%20Fund%20newletters&utm\\_medium=email&utm\\_campaign=7612298\\_NEWSL\\_HMP%202016-10-11&dm\\_i=21A8,4J5OQ](http://www.exasol.com/en/news/?utm_source=The%20King%27s%20Fund%20newletters&utm_medium=email&utm_campaign=7612298_NEWSL_HMP%202016-10-11&dm_i=21A8,4J5OQ)

### Diabetes Comic Book launched for type 1 diabetes

Dr Partha Kar, Associate National Director, Diabetes at NHS England and based at the Queen Alexandra Hospital in Portsmouth, developed the project with Dr Mayank Patel of University Hospital Southampton NHS

Foundation Trust and Derry-based Revolve Comics. The idea was developed with people who live with type 1 diabetes and is based on the title of the hit Marvel series 'Wolverine: Origins', instead titled 'Type 1: Origins'. The story follows a young man, Gary, who comes to terms with his diagnosis and his 'special powers' and features his shock, surprise, acceptance and understanding of how he will cope. 'Type 1: Origins' is available at [www.revolvecomics.com](http://www.revolvecomics.com).

## Online weight management programme (Dr C Rajeswaran)

A weight management programme, specifically Tier 3 weight management programme is being provided through a structured approach. Outcomes and success depend on patient engagement. Newer technologies are used to help people using online weight management programmes, which complement the existing weight management programme for people with obesity and diabetes. 'Simply-weight' is currently being used free for patients in Kirklees CCG and is incorporated with MidYorkshire NHS Trust weight management programme. Please contact Dr C. Rajeswaran, Consultant Physician via email: [chinnadorai.rajeswaran@midyorks.nhs.uk](mailto:chinnadorai.rajeswaran@midyorks.nhs.uk) if anyone is interested in using this online programme free for their patients.

## Behavioural changes through short films in Wales (Dr Sam Rice)

A new government-funded service for patients with diabetes was launched in Wales in November 2016 called Pocketmedic. Short films made by behavioural change specialists have been produced to be prescribed to patients with type 1, type 2 and gestational diabetes. For each condition there is a series of short films accessible via a link to be watched on mobile phones/tablets/computers. Evaluation of the initial films made for type 2 diabetes has shown promising results with those engaging with the system demonstrating significantly lower HbA<sub>1c</sub>. In 2017 further content is planned for patients with diabetes going into hospitals for elective procedures. For more information please contact Dr Sam Rice ([sam.rice@wales.nhs.uk](mailto:sam.rice@wales.nhs.uk)).

## Interesting recent research

### A rapid-fire collection of interesting recent developments in diabetes

#### Low carbohydrate diets better than low fat diet for weight loss

In a recent publication which reviewed the safety and effectiveness of low carbohydrate diets, low carbohydrate diets were slightly better than low fat diets in achieving weight loss and improving triglycerides.

<http://jaoa.org/article.aspx?articleid=2588522>

#### Converting white fat into brown fat

In a paper published in *Genes Development*, the researchers describe a genetic pathway which regulates conversion of white fat into brown fat with resultant health benefits. This could be a potential target for future medications for obesity.

<http://genesdev.cshlp.org/content/early/2016/12/02/gad.287953.116>

#### Omega 3 fatty acids promote brown fat conversion

In a study published in *Nature Communications* authors show that a receptor for polyunsaturated fatty acids, GPR 120, promotes brown fat activation. GPR 120 activation stimulates production of fibroblast growth factor-21 that leads to browning of fat and increased thermogenesis.

<http://www.nature.com/articles/ncomms13479>

#### Pre-diabetes threshold could be lower

In a study published in the *BMJ*, authors found that pre-diabetes is associated with a higher risk of mortality and cardiovascular events. The risk is high even with the lower threshold of ADA criteria of pre-diabetes (HbA<sub>1c</sub> of 39 mmol/mol or a fasting glucose of 5.6 mmol/L).

<http://www.bmj.com/content/355/bmj.i5953>

#### Viagra is cardioprotective

A recent retrospective cohort study investigated the cardioprotective effect of PDE5i. Compared with non-users, men who used PDE5i had a lower risk of death after adjusting for age, glomerular filtration rate, smoking status, prior cerebrovascular accident, hypertension, prior myocardial infarction, systolic blood pressure, statin use, metformin, aspirin and beta blocker use. There was a lower rate of incident myocardial infarction along with lower mortality.

<http://heart.bmj.com/content/early/2016/07/26/heartjnl-2015-309223.full#sec-17>

#### Some statins in association with dabigatran may increase the risk of haemorrhage

Dabigatran etexilate and statins like simvastatin and lovastatin share their metabolic pathway through molecules like P-glycoprotein. In a study from Canada, the authors show that the combination of these two drugs does not increase the risk of

ischaemic stroke but does increase the risk of major haemorrhage. The authors recommend using other statins in patients taking dabigatran.

<http://www.cmaj.ca/content/early/2016/11/21/cmaj.160303>

#### Inability to store fat may underlie the risk of diabetes

In a recent research published in *Nature*, the authors have identified 53 genomic regions associated with insulin resistance phenotype. These are associated with reduced capacity to store fat in lower parts of the body and in the subcutaneous tissues.

<http://www.nature.com/ng/journal/vaop/ncurrent/full/ng.3714.html>

#### Protein biomarkers for type 1 diabetes

This paper identified peptide biomarkers for islet autoimmunity and predictors of progression rates to clinical type 1 diabetes. Two peptides (apolipoprotein M and apolipoprotein C-IV) were sufficient to discriminate between autoantibody-positive from autoantibody-negative children.

<http://link.springer.com/article/10.1007%2F00125-016-4150-x>

#### New guidelines for statin therapy for primary prevention of heart disease

New guidelines have been published in *JAMA* to guide statin therapy for primary prevention of heart disease in adults. The recommendations include use of low to moderate dose statins in adults between 40 and 75 years of age without a history of cardiovascular disease (CVD) but with one or more CVD risk factors like dyslipidaemia, hypertension or smoking and a calculated 10-year CVD risk of 10% or more. The guidelines also recommend selective use of statins for adults in this age group without a history of CVD who have one or more CVD risk factors and a calculated 10-year CVD risk of 7.5–10%. The guidelines conclude that the evidence of benefit or harm from the use of statins in adults over 76 years was insufficient to make any recommendation.

<http://jamanetwork.com/journals/jama/fullarticle/2584058>

#### Use of statins before cardiac arrest improves outcome

In a poster presented in the American Heart Association's conference the researchers showed that the patients who were taking statins before cardiac arrest survived longer after the event. The study analysed the records of nearly 138,000 patients who suffered out-of-hospital cardiac arrest. Statin users were more likely than non-users to be alive after one year of the episode. With the prior use of statins, patients were 19% more likely to survive to reach a hospital, 47% more likely to survive long enough to

be discharged from hospital, 50% more likely to survive for at least a year afterwards and more likely to benefit if they had type 2 diabetes.

**Treatment of mild hypothyroidism may reduce stillbirths and pre-term births**

In research presented at the Society for Endocrinology Conference UK, Peter Taylor and colleagues showed that treatment of mild hypothyroidism with thyroxine was associated with a lower incidence of stillbirths and pre-term births including early caesareans. The study reported on 518 women who had mild hypothyroidism in early pregnancy, nearly half of whom received treatment. The researchers recommend universal screening for mild hypothyroidism in pregnancy as the treatment is quite effective, cheap and improves obstetric outcome.

**Phenylalanine reduces weight**

In research presented at the Society for Endocrinology Conference UK, Mariana Norton and colleagues showed that phenylalanine reduced weight in rats by stimulating calcium-sensing receptor (CaSR), leading to higher GLP-1 activity and lower ghrelin activity. Thus, the weight-reducing potential of a high protein diet may be mediated by amino acids like phenylalanine.

**Vitamin B12 deficiency in pregnancy can affect the baby**

Dr Saravanan and colleagues presented their research on vitamin B12 deficiency and its potential impact on the offspring at the Society for Endocrinology Conference UK. Such a deficiency was associated with increased leptin levels in the neonates by genetic programming. This can potentially lead to leptin resistance and higher chance of overeating, obesity and type 2 diabetes. The mechanism of this increase in leptin is not clear but the researchers think it may involve fat accumulation in the fetus or methylation reaction that turns genes on.

**Aerobic exercise can increase testosterone levels in obese men**

In research presented at the American Physiological Society's Integrative Biology of Exercise VII meeting,

investigators showed that aerobic exercise can increase testosterone levels in obese men (from 15.4 to 18.1 nmol/L). There was no effect on the testosterone levels of normal-weight men. The beneficial effect of exercise was thought to be independent of weight loss. Levels in the obese group remained lower than those in normal-weight men. The research involved an aerobic exercise programme of 40–60 minutes of walking or jogging 1–3 days a week for 12 weeks.

**Ceramide may be responsible for insulin resistance in normal-weight people with type 2 diabetes**

New research from the University of Utah suggests that ceramides might be responsible for insulin resistance in many patients with type 2 diabetes, especially those who are normal weight. They showed that, by adding extra ceramides to fat cells in mice, insulin resistance, type 2 diabetes and fatty liver risk can be increased.

<http://www.cell.com/action/showMethods?pii=S1550-4131%2816%2930533-2>

**Insulin resistance may be because of Galectin3 (Gal3) protein**

In a paper published in *Cell*, the authors show that it is possible to reverse insulin resistance by blocking or removing a protein Gal3 that is mainly secreted by macrophages in fat tissues. Gal3 attracts more macrophages, inflammation and insulin resistance. Giving mice Gal3 leads to insulin resistance. Gal3 inhibition could be a future therapeutic target.

[http://www.cell.com/cell/fulltext/S0092-8674\(16\)31445-3](http://www.cell.com/cell/fulltext/S0092-8674(16)31445-3)

**Variable vitamin D dose response in pregnancy**

In a paper published in the *Journal of Clinical Endocrinology and Metabolism*, the authors show that individual pregnant women respond differently to vitamin D replacement. The research examined the dose response in 829 women. Women given vitamin D (vs placebo) showed higher blood levels of vitamin D. Higher pregnancy weight gain, lower compliance with study medication, lower early pregnancy vitamin D and delivery in winter months were independently

associated with a lower vitamin D response.

<http://press.endocrine.org/doi/10.1210/jc.2016-2869>

**IGF-1 can reduce NASH**

In a study published in the journal *Scientific Reports*, the investigators reported a beneficial effect of insulin-like growth factor-1 (IGF-1) on hepatic fibrosis. IGF-1 significantly reduced steatosis, inflammation and fibrosis in a NASH model, methionine-choline-deficient diet-fed db/db mice, and reduced fibrosis in a cirrhotic model, dimethylnitrosamine-treated mice. The mechanism suggested is improvement in oxidative stress and mitochondrial function in the liver. IGF-1 was shown to induce senescence on hepatic stellate cells leading to their inactivation and resulting in reduced fibrosis.

<http://www.nature.com/articles/srep34605>

**Weight loss induced by a high protein diet may not improve insulin sensitivity**

Weight loss can be induced by a high protein diet but protein ingestion appears to reduce postprandial insulin sensitivity. In a study which investigated the effect of a high protein diet (1.2 g/kg/day vs 0.8g/kg/day) on post-menopausal obese women, the loss of lean mass was reduced by 45% by a higher protein diet. The benefit was, however, negated partly because it also prevented any improvement in insulin signalling, insulin-stimulated glucose uptake, adaptation in oxidative stress and cell structural biology pathways.

[http://www.cell.com/cell-reports/abstract/S2211-1247\(16\)31286-4?\\_returnURL=http%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2211124716312864%3Fshowall%3Dtrue](http://www.cell.com/cell-reports/abstract/S2211-1247(16)31286-4?_returnURL=http%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2211124716312864%3Fshowall%3Dtrue)

**Hybrid glucagon/T3 molecule may improve metabolism**

According to new research, glucagon and thyroxine (T3) hormone conjugate can correct dyslipidaemia, obesity and hyperglycaemia in DIO mice and improve NASH and atherosclerosis in preclinical models. The molecule is engineered in such a way that it is delivered only to the liver and therefore avoids cardiac side effects of T3 or diabetogenic potential of glucagon.

[http://www.cell.com/cell/fulltext/S0092-8674\(16\)31247-8](http://www.cell.com/cell/fulltext/S0092-8674(16)31247-8)



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E-mail: [news@bjd-abcd.com](mailto:news@bjd-abcd.com)

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The ABCD News is not subject to peer review

# YDEF NEWS

**YOUNG  
DIABETOLOGISTS  
& ENDOCRINOLOGISTS**  
EDUCATION • REPRESENTATION • COMMUNICATION

With the year just beginning, we look forward with anticipation to taking things forward with YDEF. We cannot wait for our flagship event 'YDEF Day' which promises to be another tailor-made educational event focused on trainees. This year our workshops and lectures are centred around addressing variations in diabetes care. We also unveil our new YDEF focus and position statement which will further drive our efforts to improve our specialty.

With this in mind, we are currently undertaking a few surveys that aim to review where we are as a specialty.

## Perceptions of our specialty

Late last year and into this year we started on our quest to understand what drives people to (or away from) our specialty. Across three sites we sent surveys to students and undifferentiated doctors to detail their thoughts and concerns with our specialty. Although we cannot reveal the results at this point, we will be discussing our findings at YDEF Day and the Diabetes UK Professional Conference. What we can say is that the results are certainly illuminating and, as a result, we worked with ABCD to draft a document to UKFPO regarding training. We hope to follow this up and see what we can do in the future for recruitment to our specialty.

## Physician burnout

Burnout in our profession is not a new concept and certainly is coming more to the forefront these days. Recently, general practice has benefited from investment in reducing burnout due to high stress levels in practitioners. Whilst evaluating and addressing physician burnout in hospital doctors has been well established in other countries such as the USA, the UK has been quite late to this. Taking the initiative, we sent out our survey 'assessing work-related well being' of trainees in our specialty. We hope to have the results from this shortly and use this to address training concerns and conditions. We also hope to make this the first step towards addressing this across hospital doctors and specialties.

## UPCOMING COURSES

### YDEF Annual Day 7th March 2017

YDEF Day is a whole day of specialist workshops and plenaries finishing with a lively debate, providing an excellent educational and networking opportunity. The event is the largest gathering of diabetes trainees and young consultants and is free of cost to attend.

### YDEF Insulin Pump Course 26–28th April 2017

Our ever popular Insulin Pump Course is set to run again in 2017 with fantastic content delivered by internationally recognised speakers. Learn all you need to be confident and knowledgeable about selecting patients, setting up and using pumps, as well as the principles relating to their ongoing management such as carbohydrate counting.

### North Europe Young Diabetologists 17–19th May 2017

NEYD is a fantastic meeting that provides an opportunity for young diabetes researchers to present their research (including research in progress and large audit) to peers from other North European countries. Over three days the best 10 candidates from each of the UK, Netherlands and Denmark present their work with more experienced researchers on hand to guide and support. This year's meeting is being held in the UK.

## Strengthening our links

As further support to our members, we are working with our colleagues at the Society for Endocrinology to collaborate and develop our specialty. We also worked with ABCD and NHS England to offer more to our members. Exciting plans with NHS England are aimed at aiding development of trainees and we hope to bring you more

details in the near future. Our colleagues at ABCD have generously agreed to offer one year's free membership to all our members who haven't previously joined ABCD. Check our website for specific details.

Dr Amar Puttanna  
E-mail: [amarputtanna@doctors.org.uk](mailto:amarputtanna@doctors.org.uk)

**YDEF is dedicated to all diabetes and endocrine trainees and is open for new members to register on our website. Take advantage of our regular newsletters and up-to-date advertising of a wide variety of courses and meetings to complement your training.**

**As always, we are continuously looking to develop and propagate our specialty so do not hesitate to contact us if you have any suggestions or questions!**

[www.youngdiabetologists.org.uk](http://www.youngdiabetologists.org.uk) @youngdiab on twitter