Congratulations to Dr Damien Keating, an Australian Research Council Future Fellow in the School of Medicine, who has won a Young Tall Poppy award for his work on communication between cells in the human brain. This area of research has potential to improve the prevention and treatment of serious degenerative diseases.

‘My lab uses cutting-edge techniques to identify how cells communicate with each other through the release of neurotransmitters and hormones’ Dr Keating said. ‘We have identified several proteins, some associated with human disorders including Down Syndrome, Alzheimer’s Disease and diabetes, that regulate the release of these chemical messengers from cells.’

Tall Poppy winners in South Australia and interstate are selected on the basis of both their research achievement and passion for communicating their work.

‘I am very happy and honoured to have received this award’ Dr Keating said. ‘It’s a real bonus for me and my research team to feel that our work is being recognised and appreciated in the broader community. I am really looking forward to the opportunity to go and talk with school kids about my research and about science as part of this award.’

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Adapted from an original article in Flinders News

Flinders University’s Young Tall Poppy award recipients, Dr Damien Keating (right) and Dr Charlie Huveneers, Faculty of Science and Engineering (left) with the Vice Chancellor Professor Michael Barber.
From the Executive Dean

This edition of Research Pulse provides another opportunity to celebrate the success of many of our Faculty’s research teams and individual researchers who have been awarded grants through the competitive research funding round conducted each year by the Faculty of Health Sciences at Flinders University.

Our Faculty allocates a substantial annual amount of funding to support our annual round of internal research grants. These cover a range of categories including Seeding, Top-up, Near Miss and Infrastructure grants. For the past two years we have also welcomed the involvement of the Flinders Medical Centre (FMC) Foundation which has contributed significant additional funding into this rigorous, peer-review process. One hundred percent of the funds donated to the FMC Foundation are dedicated to vital research and care being carried out at the Flinders Medical Centre. Our Faculty thanks the donors, board members and staff of the FMC Foundation for their continued strong support.

The total pool of funding allocated to research activities through this process for 2010 included $247,000 from the FMC Foundation and $523,000 from the Faculty of Health Science’s research budget. A total of 32 projects will be supported by the Faculty and 19 projects will be funded by the FMC Foundation, with levels of financial support ranging from $7,000 to $40,000 per project. Seeding grants continue to represent a critical component of the Faculty’s strategic support for new and innovative research proposals. This funding also increases the ability of our University’s health and medical researchers to compete for funds from external granting bodies.

Our University has recently completed its submission to the Excellence in Research for Australia (ERA) process. I thank all members of our Faculty’s research community for their participation in this process which aims to quantify research activity at each university in Australia. In particular I thank Professor Neil Sims, Professor Paul Ward and Ms Denise Caretti for their coordination and management of this process. We now wait for the Australian Research Council to announce the outcomes of this process later this year.

Professor Michael Kidd AM
Executive Dean
Faculty of Health Sciences
Flinders University

Collaborations with China

The first half of 2010 has seen a focus on engagement in China for the School of Nursing & Midwifery (SoNM). In April, Professor Paul Arbon, SoNM Dean, led a small delegation on visits to the Schools of Nursing at Shandong University, Chongqing Medical University and Third Military Medical University. These visits provided the impetus for further exchange and research activities between these partners.

In May and June, Dr Steve Parker and Mr Paul Saeki also visited the Schools of Nursing at the three universities above as well as at Central South University in Changsha, Hunan Province.

In late August, Dr Alison Hutton and Dr Julian Grant are visiting Shandong University, as part of a research team conducting an audit of adolescent health in rural and urban settings in the city of Linyi. This city is one of ten pilot sites across China participating in an Adolescent Health Project being run by the Chinese Ministry of Health in collaboration with the WHO. Alison and Julian will scope how the SoNM can support, enhance and develop adolescent health programmes in China. This is a growing area of concern in China, where communities have undergone rapid economic and urban development but lack experience and understanding of managing these transitions and the implications for health of young people. Key areas of interest for SoNM in the project are:

1. Evaluating community nursing health programmes, in particular how capacity building can bring about change,
2. Exploring and further developing educational models for community nursing in Australia and China,
3. Contributing to the broader arena of adolescent health research in the context of rapid economic development and urbanisation.

In March, Dr Huahua Yin began her one year visit to SoNM from the Third Military Medical University in Chongqing. She has been working with the team from the Research Centre for Disaster Resilience and Health, focusing on disaster nursing and community preparedness to act during disaster events.

If you would like further information about SoNM relationships and activities related to China, please contact paul.saeki@flinders.edu.au

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Chongqing Medical University nursing students with Flinders Lecturers Dr Julian Grant (centre left) and Dr Lily Xiao (centre right) and Flinders Chinese nursing students
On June 4th, the School of Nursing & Midwifery (SoNM) hosted a visit by Ruth De Souza from Auckland University of Technology (AUT), New Zealand. Ruth De Souza is a Senior Research Fellow and Coordinator of AUT’s Centre for Asian and Migrant Health Research and Program Leader of the Bachelor of Health Science (Health Promotion). Her visit was supported through a Visitor Seminar Travel Grant from Flinders University Faculty of Health Sciences organised by Dr Pauline Guerin.

Ruth delivered a public seminar entitled *Hopeful projections and intractable realities: Discourses of migrant maternity in Aotearoa/New Zealand*. The seminar detailed an empirical study exploring the discourses used by well child health providers in New Zealand to represent their work with migrant mothers. Her thesis is that migrant mothers are required to adapt to dominant cultural norms such as autonomy and independence, and that these practices are colonising because they involve the surveillance and control of mothers, potentially contributing to health inequalities, and ethically and socially unacceptable outcomes. Researchers from the SoNM and across the University joined to hear about Ruth’s research and to discuss joint interests and potential research collaborations over a morning tea.

Ruth’s visit also included planning for future collaborative research projects between SoNM and AUT relating to the teaching of Indigenous health in tertiary education and mothering for migrants and refugees.

An ARC future fellowship application and other projects are being negotiated, and return visits by SoNM researchers to New Zealand are planned.

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Article adapted from original piece on SoNM website

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**Physical Activity and Nutrition Observatory: Research and Monitoring Alliance (PANORAMA)**

Professor Lynne Cobiac (Nutrition and Dietetics) and Professor John Coveney (Public Health) have secured funding through SA Health to establish a $1.05 million research and evaluation centre of excellence supporting the Eat Well Be Active Healthy Weight Strategy. The strategy, programs and policies are designed to promote healthy weight in the South Australian population through preventative and management strategies promoting healthy eating and increased physical activity initiatives in schools, communities and the workplace.

The Physical Activity and Nutrition Observatory: Research and Monitoring Alliance (PANORAMA) will be funded until 2013, with the view to developing into a long term sustainable research network after the initial funding period.

PANORAMA will also generate further evidence-based research, evaluate action and monitor South Australia’s progress towards improved nutrition and increased levels of physical activity, while recognising the determinants of health and population health approaches that influence nutrition, physical activity and healthy weight. This will assist SA Health turn this information into practical programs and policies.

PANORAMA will take advantage of expertise in nutrition from Associate Professor Michelle Miller (Nutrition and Dietetics) and in evaluation from Mr Michael Bentley (Southgate Institute). Expertise in physical activity will be provided by Dr Jim Dollman from the University of South Australia, in conjunction with Dr Kate Ridley (Education).

In addition to the core team, other expertise will be drawn from key researchers within the School of Medicine, Faculty of Social and Behavioural Science, School of Education and the University of South Australia’s School of Health Sciences over the life of PANORAMA. The team has been established to assist in providing technical and strategic advice on physical activity and public health nutrition monitoring, research, evaluation and data management.

Further information is available at http://www.flinders.edu.au/panorama, or contact john.coveney@flinders.edu.au or lynne.cobic@flinders.edu.au

Julie.Gardner@flinders.edu.au
Coordinated Aboriginal Mental Health Care – a 10 year collaborative research journey

A long term research partnership has uncovered new understandings about issues affecting Aboriginal people with mental health (MH), alcohol and other drug (AOD) problems, and contributed to improved ways of responding to their complex needs. A model of coordinated care has been developed and is being implemented by the Port Lincoln Aboriginal Health Service (PLAHS).

Previous research from this team confirmed that a number of Aboriginal people experience MH and AOD problems, commonly with additional physical and social health challenges. Holistic care is not provided by the usual ‘siloed’ services resulting in missed opportunities for MH promotion and early intervention, and unsafe situations for clients and families. Navigating the complex maze of disconnected services is very difficult, and barriers to accessing and receiving timely services are frequently encountered. A consistent recommendation from this research was for better integrated systems and pathways of care.

The Coordinated Aboriginal Mental Health Care (CAMHC) project was developed in response to this recommendation and requests from Aboriginal communities and services in the Eyre Peninsula region of SA. The aim was to develop agreed pathways and protocols of care that are client-focused, holistic, culturally appropriate, sustainable, and embedded in collaborative and integrated systems within and between Aboriginal and other health and human services.

Through document review and interviews with service providers, we explored barriers and enablers of coordinated Aboriginal MH and AOD care. A model of coordinated Aboriginal mental health care was developed through an iterative consultation process with PLAHS staff and Aboriginal community leaders. Main elements are: a ‘no wrong door’ service design; ‘across team’ client care, uniform MH and AOD screening, assessment, intervention and referral protocol; standardized electronic documentation; client-centred intervention and care plan; case-management; clinical coordination; workforce education; organisational change to support communication and cooperation; and a systemic and sustainable approach. Currently PLAHS is working on embedding the model into standard practice, and incorporating the Indigenous Risk Impact Screen (IRIS), a validated screening and early intervention tool for Aboriginal MH and AOD, into the model.

During the last year the project team has been talking to Aboriginal community-controlled, government and non-government MH and AOD service and policy leaders across SA about the research findings and achievements, and their potential application in other settings. All expressed strong interest and fully support the adoption of the PLAHS model of coordinated Aboriginal mental health care and IRIS more widely to achieve a systemized and coordinated inter-agency approach to Aboriginal mental health care.

Our team comprises Aboriginal and non-Aboriginal researchers, community leaders, health practitioners, managers, and policy makers. The CAMHC project team, led by Inge Kowanko (Flinders Aboriginal Health Research) and Charlotte de Crespigny (The University of Adelaide), includes Jackie Ah Kit, Harry Miller, Helen Murray, Colleen Prideaux, David Mills and Carolyn Emden. We use a participatory action research approach, informed by critical social theory, and mixed methods. Our partnership has the capacity to take action ‘along the way’ such as advocacy, provision of professional resources, education and training, and liaison with relevant government and other services. As a team our core values are cultural respect, commitment, trust, collaboration, timely responsiveness to community and service provider needs, flexibility, inclusiveness and consultation.

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From 2000-2010 consecutive CEOs of Port Lincoln Aboriginal Health Service supported partnership research to improve Aboriginal mental health care. From left: Les Kropinyeri, Ray Davey, Jackie Ah Kit, Harry Miller.
Combining PhD research with University service

Generally, as research higher degree students, we are asked to write about our research. As an example, for the past 3½ years as a PhD candidate in the School of Nursing and Midwifery, I have spent countless hours conducting and writing about my research. Currently I am in the final stages of writing up and bringing together my thesis. The topic is women’s experiences of fertility management/control issues prior to a termination of pregnancy. Using a sequential mixed methods explanatory design my research will contribute new knowledge and holistic understanding to this sensitive area of health care. Additionally, the findings have implications and recommendations for service delivery and health policies.

However, rarely do we, as PhD candidates, have the opportunity to write about our other activities around the University community. For example, over the past few years I have been actively involved in a number of the University’s committees, gaining a great deal of experience and knowledge. I have provided student representation and contributions to areas such as quality improvement, ICT review, library review, surveys, and numerous University position interview panels. As the Vice President of the Post-Graduate Student Society, I regularly network with research higher degree students from different faculties within the University. I have certainly had successes with my involvement on University committees. For example, I identified a lack of professional development support for students of the Faculty of Health Sciences presenting at conferences. With support and encouragement I wrote a proposal for a scholarship fund and submitted this to the Faculty Board. Subsequently this funding was approved and the scholarship is now available to both undergraduate and postgraduate students. It is an achievement I am very proud of. Overall it is very rewarding being involved in the University, not only as a PhD candidate but also as a student representative.

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New diabetes prevention book

A world-first book on diabetes prevention programs, featuring the research of the Greater Green Triangle University Department of Rural Health (GGTUDRH), was launched at the 6th World Congress on the Prevention of Diabetes and its Complications in Dresden.

Professor James Dunbar, Director of the GGTUDRH, and Professor Prasuna Reddy, Director of Research, co-edited and contributed three chapters of the Diabetes Prevention in Practice book.

With diabetes now affecting 285 million people world-wide and predictions that number could grow to 438 million by 2030, urgent action is needed to develop and implement prevention programs to control the rising prevalence of the disease. Professor Dunbar said the book helped give Australia’s diabetes prevention programs a prominent position on the international stage.

The book features chapters outlining how the Life! Taking Action on Diabetes program was developed in 2007 in the Greater Green Triangle region in south-west Victoria and south-east South Australia and later expanded throughout Victoria. It is now recognised as the largest systematic diabetes prevention program in the world. The program links a strictly defined intervention to a highly developed training program and continuous quality improvement. It aims to reduce the risk of developing type 2 diabetes by engaging participants in behaviour change and methods of goal setting and problem solving to adopt an active lifestyle and healthy diet. Early analysis suggests the program has achieved desired changes among participants identified as being at high risk for diabetes.

Professor Dunbar said the book was designed to inform governments, health service professionals and researchers about what can be achieved through diabetes prevention programs and identify what is successful and what can be improved. The book is a collection of ‘real world experiences’ and summarises practical strategies for screening, intervention and stakeholder involvement.

Further information: director. research@greaterhealth.org Prasuna.Reddy@greaterhealth.org
Celebrating Success in the Faculty

The Faculty of Health Sciences congratulates members who have recently received research grants, awards or honours. The following list shows Chief Investigators who received grants from 26/5/10 to 31/8/10, as advised by the Research Services Office.

**Australian Institute for Health and Welfare**
- Sophie Pointer: Hospital Standardised Mortality Ratio Indicator, $22,400.
- James Harrison: Core hospital-based outcome indicator, $32,500.

**ARC Discovery Project**
- Kathy Arthurson: Community vulnerability and extreme events: Developing a typology of coastal settlement vulnerability to aid adaptation strategies, $220,000.

**ARC Linkage Project**

**Australian Primary Health Care Research Institute Travelling Fellowship**
- Jeff Fuller: Application of service network research in primary health care, $36,120.

**Cancer Australia**
- Paul Ward: Research into the factors that influence the outcome of Cancer-related multidisciplinary teams, $42,244.

**Commonwealth Department of Health & Ageing**
- Simon Patterson: Rural Primary Health Services Program Reporting System, $460,000.

**Galapagos NV**
- Peter Mackenzie, Robyn Meech: Functional Expression of UGT3A2 in different eukaryotic systems, $50,000.

**General Practice SA Inc (GPSA)**
- Leigh Roeger, Richard Reed: Consultancy to develop alternative funding models for the equitable allocation of funds to GPSA, $38,000.

**NHMRC Project Grant**
- Michelle Miller: A trial assessing N-3 as treatment for injury-induced Cachexia, $463,125.

**National Organ and Tissue Allocation and Outcomes Registries**

**Nurses’ Memorial Foundation of SA Incorporated**
- Paul Arbon: Exploring nursing students understanding of being regulated, $28,000.

**Perpetual Philanthropic Research Grant**
- Peter Mackenzie: Regulation of steroid hormone – inactivating enzymes, $57,981.

**Queensland Health**
- Mark Shephard: Aboriginal & Torres Strait Islander Diabetes Management Improvement Project - Equipment for Quality Assurance in Aboriginal & Torres Strait Islander Medical Services (QAAMS) Program, $450,000.

**SA Health Practitioner Fellowship**

**2010 Faculty of Health Sciences Grants - Infrastructure**
- Alison Hutton: Flinders University Centre for Disaster Resilience and Health, $18,000.
- Fiona Young: Mammalian Cell Culture Equipment and CO2 Incubators, $18,500.
- Michael Michael: xCelligence RTCA DP real-time cell analyser, $40,000.
- Nicholas Spencer: Identification of impaired colonic motor activity in patients with inflammatory bowel diseases and chronic constipation, $30,000.
- Tim Chataway: Mass Spectrometry software and GE MultiTemp III chiller, $14,500.

**2010 Faculty of Health Sciences Grants - Near Miss**
- Fran Baum, Angela Lawless: Complex policy processes, social determinants of health, well being & equity: the SA Health in all Policies initiative, $18,500.
- Peter Mackenzie: Characterization of the novel human UDP glycosyltransferase 3A family, $20,000.

**2010 Faculty of Health Sciences Grants - Seeding**
- Adam Gerase, Eimear Muir-Cochrane: Empathy responses by nurses in acute care mental health settings, $15,000.
- Colin MacDougall: Parent’s account of their decision making about increasing the independent mobility of their 10-13 year olds in local environments, $15,000.
- David Currow, Peter Frith, Amy Abernethy: The role of peripheral opioid receptors in modulating breathlessness - in vivo study in chronic obstructive pulmonary disease, $20,000.

**Special Congratulations**

Laurie Geffen, One of the founders of Flinders University’s medical program and a former Dean of the School of Medicine, Emeritus Professor Laurie Geffen, has been made a Member of the Order of Australia (AM) for service to neuroscience as a clinician and researcher, and to medical education.
Elke Sokoya: Sirtuin I and cerebrovascular dysfunction in type II diabetes, $10,000.

Gino Saccone: Mechanisms related to the Amelioration of Acute Lung Injury by the Potential Therapeutic Peptide feG, $15,000.

Jeff Fuller: Development & performance tools for comprehensive primary health care services: GP Plus pilot, $12,000.

John Coveney: Food trust in non-English speaking communities, $17,500.

Julian Grant, Pauline Guerin: Parenting in a new country: Exploring the complexities for single refugee mothers, $19,950.

Lily Xiao: Family caregivers’ perspectives of barriers to service utilisation when caring for older people with dementia from culturally and linguistically diverse backgrounds in South Australia, $10,000.

Lindy King, Ingrid Belan: Factors that impact on nurses’ effective use of the Medical Emergency Team (MET) system in Australian hospitals, $12,000.

Malcolm Bond, Anita De Bellis: Evaluation of The Hospital Elder Life Program (HELP) Flinders Medical Centre, $10,000.

Marcello Costa: Relation between myogenic and neurogenic motor activity in the rabbit intestine, $15,500.

Michael Bentley: Australian Mental Health Policy and Social Determinants of Mental Health, $10,000.

Michelle Miller, Lynne Cobic, Mary Luszcz: Anti-inflammatory diets for older adults with geriatric cachexia, $10,000.

Paul Ward, Richard Woodman: Impacts of School-based Smoking Prevention Program in Schools in Aceh, Indonesia, $15,000.

Penny Lynn: Transcutaneous electrical stimulation for adults with slow transit constipation, $15,000.


Tim Carey: Evaluation of the Lytente Aputre Social and Emotional WellBeing Program, $15,000.

Bill Blessing: Regional distribution of cardiac output during the ultradian Basic Rest-Activity Cycle (BRAC), $15,500.

2010 Faculty of Health Sciences Grants - Top up


Kathy Arthurson: The relocation tool kit: a guide for implementing relocation policies that enhance residents’ health and well-being and social inclusion, $8,700.

2010 FMC Foundation Grants

David Watson, Damian Hussey, George Mayne: Efficacy of Ablative Therapies for Barrett’s Oesophagus, $10,000.

Xin-Fu Zhou: Roles of Huntington-associated protein 1 in the endocytosis of brain derived neutrophic factor, $10,000.

Catherine Abbott, Tong Chen: Investigating the role of dipeptidyl peptidase 10 in Alzheimer’s Disease, $14,000.

Andrew Bersten: Respiratory and peripheral muscle strength and bulk in critically ill patients: is there a relationship with systemic inflammation?, $7,000.

Benjamin Blyth, Pamela Sykes: Lymphocyte adoptive transfer system for studying cell-cell communication in vivo, $11,000.

Kathryn Burdon: Preliminary study of the genetics of Angle Closure Glaucoma, $19,500.

Morton Burt, Campbell Thompson: Effect of glucocorticoid dose on cardiovascular risk and postprandial blood glucose in hypopituitary patients, $12,000.

Jonathan Gleadle, Jordan Li: Circulating microRNA levels in patients with chronic kidney disease, $10,000.


Robyn Meech: Analysis of muscle and heart regeneration pathways in zebrafish, $14,000.

Hakan Muyderman: The role of astrocytes in TDP-43-mediated motor neuron disease, $15,000.

Carole Pinnock, Grant Buchanan, Sam Chopra: Stromal androgen receptor activity in benign and malignant prostate tissue, $17,500.

John Power: The Profile of Mitochondrial Pathology in PD and DLB, $7,000.

Shivani Sharma, Jamie Craig: Evaluation of Big-H3 transgenic mice as a model for stromal corneal dystrophy, $15,500.

Neil Sims: Restoring neurological function after stroke by modulating glial cell responses, $15,500.

Olga Sukhacheva: Why is there male dominance in oesophageal adenocarcinoma: addressing the role of estrogen receptors expression and effects of estrogenic compounds on oesophageal adenocarcinomas, $10,000.

Keryn Williams, Helen Brereton, Doug Coster: Differential microRNA expression in susceptibility to oxygen-induced retinopathy, $18,500.

Greg Barritt: STIM1 and Orai1 proteins in store-operated calcium entry in liver, $10,000.

Robert Rush, Mary-Louise Rogers: Targeted knockdown of human SOD1 genes by non-viral gene delivery to delay onset and progression of ALS, $15,000.

Research Pulse welcomes information regarding grants, awards and honours for publication in future issues.
Nikolai Petrovsky wins Ernst & Young Entrepreneur Of The Year Award

Professor Nikolai Petrovsky, a member of the School of Medicine, recently won an Ernst & Young Entrepreneur Of The Year Award in the Technology & Emerging industries category as part of the 10th Annual Ernst & Young Entrepreneur Of The Year Awards.

These prestigious awards were set up to acknowledge the contribution that entrepreneurs make to the economy and the broader community. The Ernst & Young Entrepreneur Of The Year is regarded as the world’s most prestigious business award for business leaders. Having won a regional award, Nikolai will now go on to compete at the National Awards to be held in Sydney in November. One winner from the National Awards will then go on to compete at the International Awards to be held in Monte Carlo.

The Central Region judging panel included Carolyn Hewson AO, Non-executive Director of Westpac, Bruce Carter, Managing Partner Ferrier Hodgson and Chairman South Australian Economic Development Board and Raymond Spencer, Chairman Capgemini Financial Services. In awarding the Central Region Technology & Emerging Industries Award to Nikolai the judges made reference to the fact that Nikolai had had to fight conventional wisdom and overcome major barriers to achieve his goal to provide the world with safer and more effective vaccines against life-threatening infectious diseases. The judges were particularly impressed with Nikolai’s success in a business arena dominated by much larger global pharmaceutical companies.

The Ernst and Young Entrepreneur Award marks yet another successful year for Nikolai’s vaccine research team at Flinders, following on from last year’s success in winning the AMP Innovation Award at the Telstra Business Awards and the AusIndustry Innovation Award at the Australian Anthill Awards. In addition, this year Nikolai was also selected as one of the threefinalists in the Medical Research Translation Award at the Australia Museum Eureka Awards.

On the research side, this year Nikolai has been busy establishing new international research collaborations. For example, the Central Veterinary Research Laboratory (CVRL) in Dubai has for the first time confirmed the effectiveness of Nikolai’s vaccine adjuvants in camel vaccines! CVRL was founded by His Highness Sheikh Mohammed Bin Rashid Al Maktoum in 1985 and, amongst their missions, is the development of vaccines to protect the Sheikh’s valuable stable of racing camels.

In another notable coup this year, Nikolai’s vaccine adjuvants are undergoing testing by the USA Food and Drug Administration (FDA) as part of a research collaboration to develop novel staphylococcal and anthrax vaccines. He has also continued his highly successful clinical influenza vaccine research with Dr Dimitar Sajkov and Professor David Gordon, with final results of the three year vaccine study that includes over one thousand subjects expected by early next year.

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