

Voedselwetenskap Food Science

Junie 2012

New Food Science facility officially opened



‘Dit is lekker om ’n sukses van sestig jaar met ’n nuwe begin te vier’

Prof Russel Botman, Rektor, Universiteit Stellenbosch tydens die amptelike onthulling van die plaket by Voedselwetenskap.



Voedselwetenskap skop af met styl, 18 April 2012.

'Die Voedselbedryf is die tweede grootste bedryf in SA en bied tans werksgeleenthede vir meer as 1.5 miljoen mense in ons land. Dit en die daaglikse groeiende behoefte aan veilige en bekostigbare voedsel is van die redes waarom Voedselwetenskap so 'n belangrike navorsingsveld is.' Dit was die woorde van mnr Jannie Mouton, stigter en voorsitter van die PSG Groep, tydens die amptelike opening van die nuwe vierverdieping gebou wat langs die bestaande gebou in Hammanshandweg opgerig is.



Mnr Jannie Mouton, gasspreker



Die projek het nie net die oprigting van 'n nuwe gebou met ondermeer 'n nuwe 126 sitplek lesingsaal, rekenaarfasiliteite, laboratoriums en 'n raadsaal behels nie, maar ook die opgradering van etlike bestaande laboratoriums en ander lokale in die bestaande gebou.

Nuwe Voedselmikrobiologie laboratorium

Prof Leopoldt van Huyssteen, Uitvoerende Direkteur: Bedryf en Finansies, wat die geleentheid waargeneem het namens Prof Russel Botman het die Departement geprys vir die positiewe bydrae wat hul lewer op die samelewing as 'n geheel. Hy het ook klem gelê op die feit dat daar 'n vraag is na goed opgeleide Voedselwetenskaplikes. Die feit dat ons studente vinnig deur die Voedselindustrie opgeraap word is 'n teken van vertroue in die wetenskap wat ons beoefen en die kwaliteit navorsing wat ons doen.

Dr Gunnar Sigge, Voorsitter van die Departement het sy dank uitgespreek teenoor die bestuur van die Universiteit vir die vertroue wat hulle in die Departement stel om so 'n groot finansiële belegging in die vorm van 'n toonaangewende fasiliteit te maak. Veral gesien in die lig dat die Departement byna in 1994 gesluit is weens ondermeer te lae studente getalle.

'Dit is dus 'n eer om na sestig jaar van Voedselwetenskap betrokke te wees by die inwyding van 'n nuwe fasiliteit'.



Die Departement Voedselwetenskap het in 1952 haar deure oopgemaak met twee ingeskrewe studente. Ons was geëerd om mnr Jannie Hoffmeyer, een van hierdie studente, die aand met die openingsfunksie, as gas te ontvang.

Foto, vlnr: Mnr Jannie Hoffmeyer (eerste ingeskrewe student), prof Trevor Britz, prof Leopoldt van Huyssteen, mnr Nick Starke, dr Gunnar Sigge, dr Arno Visser, mnr Peter Hayward (oud-dosent) & mnr Dawie Basson (oud-dosent)

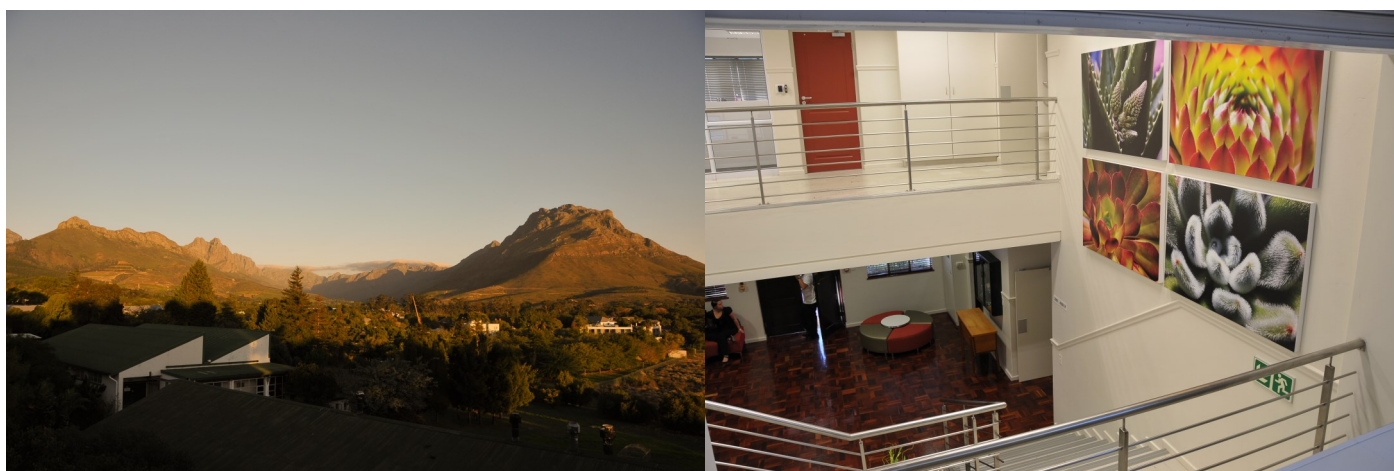
In 1995 was daar altesaam vier-en-dertig ingeskrewe Voedselwetenskapstudente, waarvan vyf nagraads was. Vanjaar, sestig jaar later is ons trots om te sê dat ons tans sestig geregistreerde eerstejaars het en 'n totaal van honderd en vyftig voorgraadse studente en vyftig nagraadse studente. Hierdie toename in studentegetalle het die behoefte aan beter en groter fasiliteite laat ontstaan. Sedert 1995 is daar vier maal verander aan die gebou. Hierdie laaste projek wat reeds in 2010 'n aanvang geneem het en in Januarie 2012 voltooi is, is moontlik gemaak deur die Departement van Hoër Onderwys en Opleiding asook die Universiteit se HOOP projek.

Prof Russel Botman het op Maandag 28 Mei 2012 die Departement Voedselwetenskap besoek waartydens hy die onthulling van die amptelike plaket tydens 'n privaat funksie waargeneem het.

'Waar olie die wêreld se hoof politieke dryfveer van die vorige eeu was, kan voedsel moontlik die oorheersende rolspeler van die huidige eeu wees.' Dit was die woorde van die rektor tydens sy toespraak.

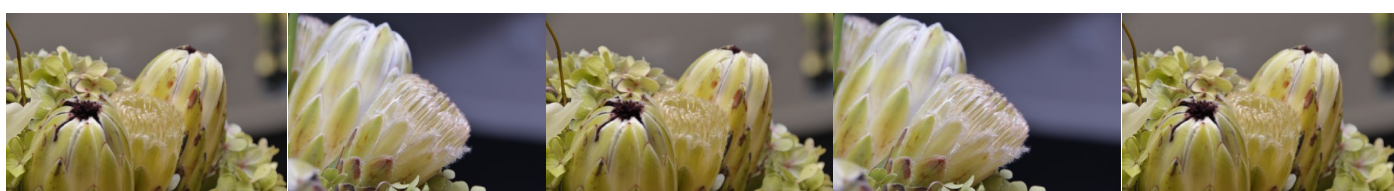
Met hierdie nuwe fasiliteit sien ons daarna uit om met ywer op die suksesse van die verlede voort te bou.

Fotos: Anton Jordaan



Uitsig vanaf die 4de vloer, Raadsaal oor Stellenboschberg

Kunswerke in die nuwe voorportaal geborg deur RONIN GMS



Thank you to the following sponsors

Distell

KWV

Zevenwacht Wines

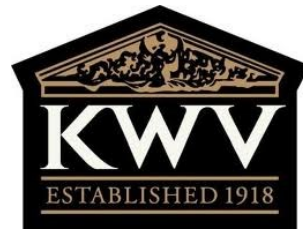
Chill Beverages

Defy for providing equipment for 5 new labs



Photo left: Prof Marius Lambrecht from Distell with dr Gunnar Sigge

Photo right: Mr Brian Gray from KWV with prof Marena Manley





WHIPPED

Whipped yoghurt dessert with flavour bursts, for the ultimate experience in instant snacking



KOMBU-CHEWS

Fermented Rooibos chewy tea drop, enroled in dark chocolate

10 May 2012 was D-day for these 4th year students.....

The occasion, the bi-annual product development day.

This is when visitors from all over the spectrum attend a presentation where the students' work and creativity of the past few months are being showcased

Congratulations Prof Britz, your team & all 4th years with a successful event.



YO-TO-GO

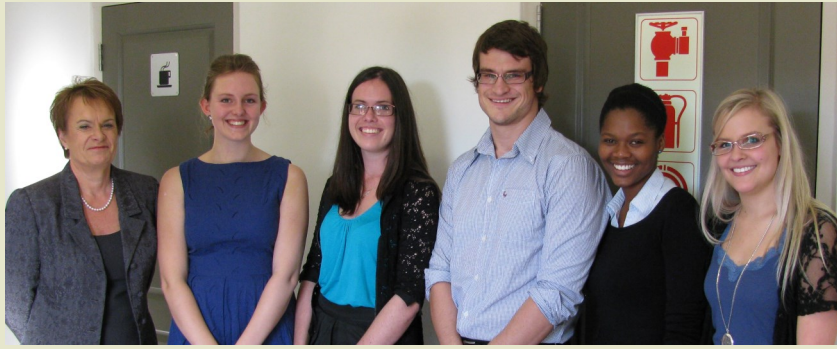
Freeze-dried drinking yoghurt with added wheat germ



MUCHOS

Savoury nacho style chip from a bean trio





On the photo (from left to right): Ms Rosie Maguire (Inessence), Lara Alexander, Karla van Zyl, Franco Marais, Pumi Shange, & Nicola Laurie

Ms Rosie Maguire presenting the SAAFoST prize for the
'best overall product & presentation'
to group 3 for their product, WHIPPED.



Photo from left to right: Ms Rosie Maguire, Marlize Stalmans, Lene Erasmus, Estia Bekker, Percy Sibanda & Fiona Rolstone

The SAAFoST prize for the product believed to have the best commercial potential went
to group 2 for their product KOMBU-CHEWS



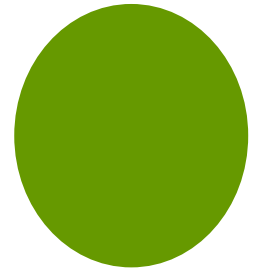
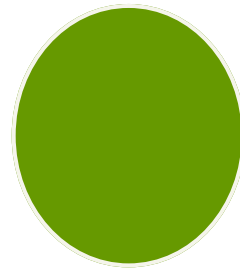
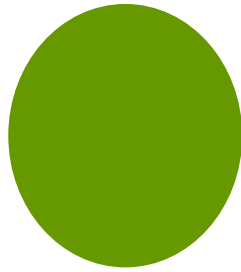
Group 1 received the SynNovations
prize for developing the most
innovative product, YO-TO-GO

One designated group member will be given the opportunity
to attend a workshop on innovative thinking at
'SynNovations'.

Photo from left to right:

Wendy Buys, Kirsten Giddey, prof Tania Vergnani, Bert Louw, Maria Kattukkanal, Sarah Erasmus & Rushaan Ruiters

Contact Truida Prekel
Innovation Catalyst
SynNovation Solutions for more information
www.synnovation.co.za



March 2012 Graduation at Food Science

At the March 2012 graduation ceremony five BSc, six MSc and one PhD Food Science degrees were rewarded. Congratulations to all the successful candidates. May you have successful careers in Food Science!

MSc in Food Science

Shantelle Basson

Sakeus Emvula

Nicola Huisamen

Tshepo Kikine



MSc in Food Science CUM LAUDE

Adina Bosch

Alicia Theron

PhD (Food Science)

Armelle Ntsame Affane

With her study on: *The impact of environmental factors on the metabolic profiles of Kefir produced using different Kefir grains and subsequent enrichment of Kefir prepared with mass cultured grains.*

There is an increased demand for low-cost fermented dairy products in South Africa. Kefir, which is a probiotic and nutritionally balanced product, has the potential to fill this gap. Commercial-scale production requires the Kefir starter-grains to be 'mass-cultured', resulting in flavour profile anomalies. Flavour compound production in the Kefir grains therefore needs to be optimized. During this study several models were developed and applied to balance specific environmental parameters and enhance senso-profiles. The candidate proved that metabolic profiles presented significant similarities in terms of microbial activity, but differences in terms of flavour compound production. The models were applied together with starter grain enrichment, resulting in beverage variants of highly acceptable organoleptic quality.

Supervisor: Prof TJ Britz

Co-supervisor: Dr GO Sigge

Food Science PhD invited to address IUFOST 2012 in Brazil



Dr Donna Cawthorn, who graduated with a PhD (Food Science) (US) in 2011, was recently selected as one of seven young scientists worldwide who will be given the unprecedented opportunity to address the global community of food science and technology at the 16th IUFOST World Congress of Food Science and Technology in Brazil (5 - 9 August 2012).

Donna, who is currently a Postdoc at the Department of Animal Sciences under supervision of prof Louw Hoffman, will present on the focus of her research, which entails the detection and identification of animal species in food products using DNA-based techniques.



Some interesting new faces around Food Science



Dr Wasseela Verachia (left) and Dr Cristian Serea (right) are the two new Postdocs at the Department of Food Science, both working under supervision of Prof Marena Manley.

Dr Wasseela Verachia grew up in Lenasia, Johannesburg and did her undergraduate and postgraduate studies at the University of Pretoria. She received her BSc(Hons) in Microbiology and Human Physiology in 2003 and furthered her studies at the University of Pretoria with a MSc in Food Science (2005).

Wasseela did her PhD at the University of Otago in New Zealand and graduated in 2011 with her study on the effect of post-harvest handling and processing on the quality and shelf life of the New Zealand sea urchin (*Evechinus chloroticus*) gonads.

Wasseela joined the Department of Food Science at the beginning of 2012 working with Prof Marena Manley on food security of staple foods: Minimising food deterioration while optimizing nutritional content with minimal processing. Recognizing the need to address malnutrition and food security in South Africa, her aim is to evaluate the potential use of different morphological parts of *Moringa oleifera* as a food source and through minimal processing minimize food deterioration thereby extending the shelf-life while optimizing the nutritional value.

Dr Cristian Serea, who also joined the Department earlier in 2012, was born and grew up in the Transylvania region in Romania. Later in life he moved to Galati, a city around the Danube river close to the Black sea, to complete his studies. He received both his BSc (2001) & MSc (2003) degrees at the University of Dunarea de Jos, Galati, Romania.

After being a medical representative for a big Pharmaceutical company for quite a number of years, Cristian did his PhD studies full time at the University of Bologna, Italy and the University Dunarea de Jos in Galati, graduating in 2011.

The topic of his PhD study being "Research on the composition and content of antioxidant compounds in cereals. Investigations done on Romanian oats".

As a future research project it might be useful to evaluate the antioxidant potential of South African cereal grains. Currently there are no information regarding the antioxidant potential of South African wheat, barley or oat cultivars. The nature of these substances represent a fundamental interest for future research.

Cristian's mother tongue is Romanian, but he is also fluent in English and Italian. According to him he can master French and Spanish on a 'beginner' level. He is a keen traveler and Formula 1 enthusiast and he really enjoys a good movie when time permits.

Students awarded for excellent academic achievements



Ms Sarah Erasmus, photo left received the Aubrey Parsons award, based on her excellent undergraduate academic record. The Award is named after Dr Aubrey Parsons, a very enthusiastic and dedicated member of SAAFoST for more than four decades. The award is to the value of R20 000.

Sarah het ook die Suid-Afrikaanse Vereniging vir Suiweltegnologie toekening ontvang. Die prys word jaarliks aan 'n finalejaar student met die hoogste gemiddelde persentasie in alle derdejaar Voedselwetenskapmodules toegeken.

Melanie Pitout, photo right was rewarded with the SAAFoST Academic Achievement Award for being the most deserving graduate in Food Science in the class of 2012 at the University of Stellenbosch. The prize is to the value of R1000.



Eric Labuschagne, derdejaar Voedselwetenskapstudent & entrepreneur par excellence



Eric Labuschagne, 'n derdejaarstudent vertel hier sy storie van waar hy vandaan kom en waarheen hy oppad is met sy YUMMI-brownies.

Wie is Eric Labuschagne?

Ek is 'n 3de jaar BSc Voedselwetenskapstudent met Chemie @ Maties en woon tans op Somerset-Wes. 'Ek het nog altyd 'n groot belangstelling gehad in hoe dinge werk. Met skoolvakke soos Wetenskap, Ingenieurs Grafika & Ontwerp en Wiskunde het ek gedink dat my toekoms iewers tussen Ingenieurswese of Argitektuur sou lê'. Wel, wat ook al die rigting sou wees Erik is 'n skeppende siel wat wou uiting gee aan sy kreatiwiteit.

Hoe en waar het jou onderneming begin?

'Ek het reeds as klein seuntjie die pannekoekpan by my ma oorgeneem wanneer die telefoon lui'. Dit was egter jare later tydens sy Matriekeindeksamen in 2008 dat hy die televisie 'perongeluk' op 'n koskanaal geskakel het en daarna kombuis toe geloop en begin eksperimenteer het. Sy pa het vir hom geld gegee om op 'n Matriekvakansie te gaan na skool, maar hierdie jong Entrepreneur het ander planne gehad. Hy het die geld gebruik om sy eerste inskrywing by 'n mark te betaal en bestanddele te koop. Intussen het hy besluit dat 'n BSc graad in Voedselwetenskap net die regte manier is om sy liefde vir Wetenskap en Chemie te kombineer met sy passie vir kook, kos en kreatiwiteit.

Hoe kry jy dit reg om te werk en studeer?

'My kursus is redelik 'stewig' en daarom maak ek baie staat op my ma, Renette Labuschagne wat my help met bemerking en verkope asook 'n voltydse 'Pastry Chef', Linda Machinganca & 'n voltydse bakker. Ek doen self die ontwikkeling van nuwe resepte en idees. Dit hou my soms nagte deur wakker, maar hier kry ek die geleentheid om my Voedselwetenskapkennis toe te pas en my passie uit te leef'.

Waarom Brownies?

'Ek het met 'n hele reeks verskillende produkte begin, maar die brownies was altyd my beste verkoper en mees gewilde produk. Ek het intussen twaalf verskillende soorte brownies ontwikkel waarvan ag altyd by markte beskikbaar is en die res bestel kan word. Die gewildste is die Makadama-brownie, Gianduja (sjokolade-haselneut), Dulce de Leche (Argentynse melk-karamel), Tiramisu en Wit sjokolade-nougat-brownie. My gunsteling is die Gianduja'. (Haselneute word gerooster en dan verwerk tot 'n Haselneutbotter wat gemeng word met 72% donkersjokolade).

Hoe lank werk jy om die perfekte brownie te ontwikkel?

'Dit is maar 'n voortdurende proses en dit sal seker nooit 100% perfek wees nie, maar dit bly 'n uitdaging. Ek het intussen begin om gluten-vrye meel vir my brownies te gebruik. Dit is nie net beter vir glutenintolerante verbruikers nie, maar gee ook 'n fynere & meer delikate tekstuur aan die eindproduk. Ek glo in gehalte bestanddele en gebruik byvoorbeeld net 72% -donkersjokolade van uitstekende kwaliteit'.

Waar is jou YUMMI brownies te koop?

Die brownies en macarons ('n nuwe toevoegsel tot die reeks) is beskikbaar by 'n aantal Saterdag markte soos die Stellenbosch- & Willowbridge Slow markets. Wees ook op die uitkyk daarvoor in 'n hele aantal koffiewinkels in Stellenbosch, Bellville, Canal Walk & Kaapstad. Eric en sy ma neem ook deel aan byeenkomste soos die Good Food & Wine show, kaas-en-wynfeeste, Taste of Cape Town en Kamers vol geskenke. Jy kan ook via sy webblad www.yummichef.com of per e-pos eric@yummichef.com bestellings plaas.

Wat hou die toekoms in vir Eric Labuschagne en YUMMI brownies?

'Daar is 'n hele paar gedagtes wat broei. Ek sal heel moontlik my fabriek uitbrei en 'n groter verskeidenheid produkte aan 'n wyer mark begin lewer. Stel jou voor: 'n Egte Franse styl 'Patisserie' in Kerkstraat, Stellenbosch met die onweerstaanbare geure van goeie koffie en fyngebak van vroeg oggend tot laat ... Ek wil nie te veel ape uit die mou laat nie, maar 'n mens moet droom ... eendag dalk my eie wynplaas met 'n kookkunsateljee, restaurant en gastehuis, my eie boek en wie weet wat nog alles? Vir die korttermyn wil ek graag my studies voltooi en wat presies daarna volg, sal ek hou as verrassing'!



What was the Student's association up to?

L Robertson



Students, enjoying the 'welcoming braai'

The Food Science student association had a successful first semester in 2012, kicking off with the welcoming braai. It was wonderful to meet new students and officially welcome them as part of the Department of Food Science.

Thank you very much to everyone who attended the opening of the new building. The Easter egg hunt was an experience not soon to be forgotten. The sight of excited students running up the stairs searching frantically for marshmallow eggs paved the way to a wonderful, fun filled evening and certainly was a highlight of the semester.

Thank you to Muratie Wines, YUMMI-brownies, staff members, fellow committee members and students for sponsors, help, encouragement and inspiration.

Nog 'n nuwe gesig ...



Feriesa September is sedert Oktober 2012 'n nuwe deeltydse personeellid by Voedselwetenskap.

Sy het so ongemerk midde die bouery en erge stof hier begin werk en sedertdien het sy 'n onmisbare deel van die Departement geword. Op haar stil en bekwame manier maak sy 'n reuse bydrae tot ons almal en die gebou se welstand.

Feriesa het voorheen by DLC ('n privaat skoonmaakdiens) gewerk. Dit is in hul diens waar haar knap werk raakgesien is en sy nou deels by Voedselwetenskap en die Dekaan (AgriWetenskappe) se kantore werksaam is.

Allergy Advisor for Food Science students

Each year, **FACTS**, a Cape Town-based company providing food and allergy consulting and testing services, makes *Allergy Advisor* available to the Department of Food Science at Stellenbosch University.

This software programme, that assists food scientists in allergy management within the food science environment, was originally developed by the director of the company, Dr Harris Steinman, a medical doctor and world known researcher on allergies, intolerances, additives, preservatives and general food safety (<http://www.factssa.com>).



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