



# Lomiga e Fa'atatau Vaega o le Su'esu'ega le Olaga

## Obesity, Lifestyle and Genetic Adaptations

Mataupu 01

Oketopa 2017

### O ai i matou...

O le OLaGA (e aofia ai le tulaga o le fa'ama'i o le tino puta, fetu'unaiga o le fa'asologa o le soifuaga ma su'esu'eina o kene o le tagata soifua) o leni su'esu'ega o lo'o galulue fa'atasi ai le Matagaluega a le Soifua Maloloina i Samoa nei, vaega su'esu'e mo le soifuaga lautele i Yale aemaise le lunivesite a Brown. O leni vaega o lo'o iai ( le au su'esu'e, ofisa fa'afoma'i fa'atasi ai ma nisi o i latou o lo'o a'otauina i aoga mai Amerika ma Samoa nei) o lo'o ofoina mai lo latou auunaga ma le tomai ina ia maua ai se malamala'aga i le tulaga e ono lamatia ai le soifua mai le fa'ama'i o le tino puta aua le atina'eina o Samoa e afua mai i fanau iti sei o'o lava ina avea ma tagata matua.

E tolu ni vaega o lo'o fa'auauaina ai pea nei su'esu'ega: (1) Su'esu'ega mo le "Soifua Manuia" o leni polokalame o lo'o mataituina ai po'o lea se mafua'aga e ala ona a'afia ai kene o le tagata mai lona siosiomaga ma fa'afitauli e ala ai ona lamatia lona soifua mai le tino puta ma isi fa'ama'i le pipisi, (2)'Ola Tuputupua'e', e fa'aumiumi se taimi sa fa'atino ai leni su'esu'ega ona sa taumafai lea e

tulituliloaina ma mataituina le fanau iti ina ia malamalama ma nofo ilo foi i le taimi e afua ai le tulaga ole fa'ama'i o le tino puta, ma le vaega lona (3) 'Fofoaga O le Ola', o le manulauti lava ina ia malamalama ma silafia lelei le tulaga soifua maloloina o tina a'o ma'ito(ma'itaga) ma a'afiaga o le tamaititi i lona ola tuputupua'e i ni nai masina o lona soifuaga. Matou te fa'asoa atu nisi o vaega taua aua le alualu i luma o nei su'esu'ega i masina ma mea na tutupu ai.



### Nofoaga e te mauaina ai matou....

O le matou nofoaga fou o lo'o i le fogafale muamua o le ofisa a le Matagaluega a le Soifua Maloloina. Matou te fiafia lava e galulue i le matou ofisa fou, e fa'atumulia foi i matou i le agaga o le fiafia tele ona ua mafai ona fa'atuina le matou masini fou mo le fa'ata (iDXA scanner), o lea matou

**AFIO  
MAI!**

Tatou auai fa'atasi mo le tatala aloai'aina o le matou ofisa nei!

**Aso Faraile  
10 Novema**

**9:30am**

**Matagaluega  
o le Soifua  
Maloloina,  
Moto'otua**



Asiasi mai i la matou au'upega tafa'ilagi: [olaga.yale.edu](http://olaga.yale.edu)



Asiasi mai foi i luga o feau tusitusia: [www.facebook.com/YaleOlaga](https://www.facebook.com/YaleOlaga)

fa'aaogaina lea masini mo le fuaina o ponaivi, ga'o i totonu o le tino ma nisi o vaega o le tino ia'i latou uma ua aua'i i lenei su'esu'ega. I le matou potu su'esu'e uma mae'a fa'atogaina I mea faigaluega mo le fuaina o le gaoiga o le tino, masini e fuaina ai le taimi e tofa ai(moe), vai suamalie po'o vai fa'asuka mo le taimi e tu'iina ai le toto, masini mo le siakiina o le toto maualuga, toto vaivai ma isi lava fuataga o le tino. E iai le fa'amoemoega o lea avea lea nofoaga taua ma ala e a'oa'oina ai nisi o galuega tu'ufa'atasi aua polokalame fa'ata'atitia mo le lumana'i.

Momoli atu ai le agaga fa'afetai tele ia'i latou uma na fesoasoani mo le taumafai'ina

Matou masini fou mo le fa'ata mai o lenei masini ma e fa'afeiloa'i atu ai, afifio mai le matou ofisa nei, aemaise o a matou uo ma pa'aga masani mai le MOH. E tatala le avanoa e asiasi mai ai pe fa'atalofa mai foi le auaigaluega nei i so'o se taimi!



Matou masini fou mo le fa'ata



## Soifua Manuia (Good Health) Ilo'ilo'ga O Su'esu'ega

O le su'esu'ega o le Soifua Manuia, o se su'esu'ega toe tulituliloa /faaaauu mai i le 500 o sui auai mai i se tasi o su'esu'ega tele na faatautaia I Samoa nei e le Lunivesite o Brown i le tausaga 2010. I lenei su'esu'ega, na matauina ma iloa ai se keneti/tupu'aga e 'ese, ae ta'atele i tagata Samoa, e foliga mai e iai le feso'ota'iga i le aafia ai lea i le Gasegase o le Suka ma le Tino Puta Tele (<http://www.nature.com/ng/journal/v48/n9/full/ng.3620.html>). O le naunauta'iga poo le manulauti la o le Su'esu'ega a le Soifua Manuia, o le faailoaina ma faamalamalamaina a'afiaga o nei Keneti ma ni auala faata'atitia, po o ni alafua, e mafai ai ona fesoasoani i faatinoga ua iai, aua le puipuia o tagata Samoa mai i le Tino Puta Tele ma ona a'afiaga pei ona iai.

O sui auai uma o le a su'esu'eina lo latou Soifua Maloloina (BMI, o le ga'o i totonu o le tino), e fa'aaogaina ai le fa'ata (iDXA), o le Suka i totonu o le

toto, (HbA1C, o le masini e faaaogaina mo le su'esu'eina o le Suka i totonu o le toto faapea le Toto Maualuga), o a latou gaoiga faatino ma le taumafa tatau. O le a faasoa foi ma le vaega su'esu'e, i faamatalaga e faatatau i lo latou Soifuaga, Tulaga tau le soifua maloloina ma nisi o faatinoga o le a latou taofia mo le faaleleia o le tulaga tau soifua maloloina.

O la matou galuega na amataina i le faaiuga o Aukuso ma o le a faaaauina lava se'ia o'o ia Tesema o le 2018. O a matou sui auai muamua lava e mai I le afioa'ga o Fagalii ae mo le taimi nei, o loo matou galulue i le Afioaga o Moata'a. O le agaga o le fiafia ona o se avanoa taua ua matou maua ua mafai ai ona matou galulue faatasi ma Sui o le Malo o Afio'aga nei. I le Afioaga i le Pulenu'u ma le Sui Tama'ita'i. Faamoemoe o le a faapea uma lava nisi o Afioaga, o le a faasolo ai lenei polokalame, I le motu nei o Upolu.

30 mai le 500 o sui auai ua mae'a ona faatalanoaina....  
O se Amataga matagofie!



Faafetai tele lava Fagalii ma Moata'a mo le avea ai lea ma Afioga muamua i lenei Su'esu'ega.



## Foafoaga o le Ola (Beginning of Life) Ilo'ilo'ga O Su'esu'ega

O le Su'esu'ega ua faaigoaina o le 'Foafoaga o le Ola', e faatatau lea i le faamalamalamaina lea o Tinā, i le taua o lo latou Soifua Maloloina, aua e mafai ona a'afia ai le ola maloloina ma le ola tuputupua'e o lana pepe i masina amata o lona olaga. O le galulue vavalalata o i latou o e o loo faatautaia lenei polokalame ma le au-faigaluega a le Soifua Maloloina a Samoa (NHS) ma le vaega suesue, o loo galulue i le faatalanoaina ma le su'esu'eina o matua i tulaga o le tausiiaina o lo latou soifua ma nisi o vaega aogā mo le lelei tausii o le ola maloloina o le pepe. E lua ni vaega taua o loo faatinoina ai la latou foi pito la'au: (1) O le galulue i faamaumau faa-saienisii e faatonutonu ai le tulaga o iai le tamaitiiti ina ia mafai ona malamalama le Tinā i le taimi a'o tau'ave, poo le tuputupua'e foi o le tamaitiiti ao iai i totonu o le fanua; ma (2) O le resitalaina lea o Tinā ina ia auai i totonu o lenei suesuega mo le soifua

maloloina o pepe fou ma lo latou ola tuputupua'e. E auai le tinā i le suesuega pe afai ua atoa le 36 o vaiaso o le ma'ito ma faaauau ai lava se'ia o'o i le fa masina le matua o le pepe. E fai fuaga o pepe faatasi ai ma le malamalama o tinā i lona soifua maloloina ma le a'oina o le faasusuina o le pepe. Mo le taimi nei la, ua silia ma le 60 tinā ua mae'a faatalanoaina ma ua matou feiloa'i atu nei la i la matou pepe lona 42.



O le tamaitai o Kendall Arslanian o ia lea o loo ta'ta'iina lenei su'esu'ega faatasi ai ma lona soa-tau, le tamaita'i su'esu'e ia Theresa Atanoa, e fiafia lava e faafeiloa'i i sui auai uma o lenei polokalame!



# Ola Tuputupua'e (Growing Up) Ilo'ilo'ga O Su'esu'ega

O le suesuega o le 'Ola Tuputupua'e', na amataina i le tausaga e 2015 ma e 319 le aofai o Tinā, faatasi ai ma a latou fanau na resitalaina mai i Afioaga e 10 o Upolu nei. E 2 i le 4 tausaga le matutua o fanau na amata resitala i leni polokalame, o le faamoemoe e ta'i-2 tausaga ma toe faaauauina leni polokalame, mo le asiaina o fanau lava nei, ma faaauau ai lava se'ia o'o ina matutua. Ae le gata i lea, o le fia faapupula atu lea o nisi o vaega taua i le tulaga o a'afiaga o le Tino Puta tele e ono a'afia ai le fanau, faapea ni faatinoga e mafai ai ona faailoa le tulaga i le Tuputupua'e o le tamaitiiti ma lona Ola maloloina.

O le Vaega lona Lua o leni su'esu'ega, ua mae'a, na amataina ia Me se'ia o'o ia Aukuso o le tausaga nei lava. E 235 Tinā ma fanau na mafai ona toe resitalaina mai ia i latou e 319 na auai i le suesuega i le tausaga e 2015, faatasi ai ma le 188 o nisi o sui fou na auai i le tausaga lava leni, tatou toe feloa'i i le 2019. Matou te faafetai tele lava i Upolu

nei na auai: Lepea, Moata'a, Magiagi, Tuana'i, Falefa, Solosolo, Lotofaga, Utuali'i ma Sale'imoa. O se vaega e to'a-84 o le 'Ola Tuputupua'e' na latou taulimaina le masini e pei o se uati (accelerometers) mo le vaiaso atoa aua le fuaina o a latou gaioiga poo galuega faatino, a mae'a lea, ona aumai lea i la matou ofisa mo le faatinoina o le fa'ata poo le (iDXA,) e mafai ai ona iloa ni faamatalaga e faatatau i le maloloina o a latou ponaivi ,ga'o ma le faatulagaina o musele o le tino. O le agaga o le fiafia, ona o i matou o le vaega muamua ua mafai ona faatinoina le fa'ata (iDXA) i Tamaiti o le Atu Pasefika! O loo tuufaatasia le faai'uga o la matou suesuega leni, a ma'ea ona faao'o atu lea i Afioaga ta'itasi faaiuga o a latou lava suesuega. Faato'a toe faaauauina foi la matou polokalame leni i le 2019, ae o le a faailoa atu le faaiuga o le suesuega o le tausaga leni i le isi a tatou lomiga o le a soso'o ai.



Vaega Su'esu'e ma nisi o Sui o le Komiti a Tinā i Lotofaga i le mae'a ai o se tasi o aso matagofie. Toe feloa'i i le 2019!





# OlaGA Study Group Newsletter

## Obesity, Lifestyle and Genetic Adaptations



Issue 01

October 2017

**PLEASE  
JOIN US**

for our official  
lab opening!

Friday, 10  
November

9:30am

Conference Room  
Ministry of Health  
Moto'otua,  
Samoa



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### Who we are...

The OLaGA (n; 'life' Obesity, Lifestyle and Genetic Adaptations) study group is a collaboration between the Samoa Ministry of Health, Yale, and Brown Universities. The team (researchers, clinicians, and students from the US and Samoa) uses a life course approach to understanding how risk for obesity develops among Samoans – from young infants to adults. The group have three ongoing studies: (1) 'Soifua Manuia' which looks at how genes and environment influence obesity and diabetes risk among adults, (2) 'Ola

Tuputupua'e' a longitudinal study which follows children to understand when obesity in children first begins, and (3) 'Foafoga O le Ola' which aims to understand how mother's health in pregnancy influences her child's growth and health in the first few months of life. We'll be sharing updates and progress from each of these studies in this monthly newsletter.



### Where you can find us...

Our new home is located on the first floor of the Ministry of Health building. We are so excited to be here, and we're especially excited about our newly installed iDXA scanner, which we will be using to measure bone, fat, and lean mass in our study participants. The lab is also equipped with (cont. on p. 2)



Our new iDXA scanner

state-of-the-art tools to measure physical activity, sleep, blood glucose, blood pressure, anemia, and a number of other measures of body size. We hope the lab will be a place of learning and collaboration

in the coming months.

Thank you to everyone who helped us move in and made us feel welcome here, especially our friends at the MOH. Feel free to stop by and say hello anytime!



## Soifua Manuia (Good Health) Study Updates

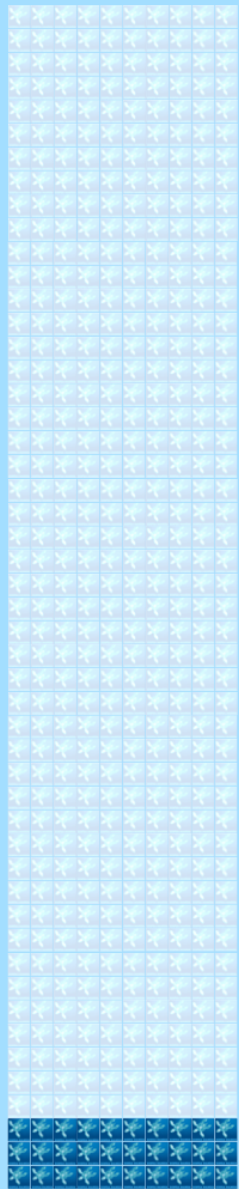
The Soifua Manuia study is a follow up study of 500 participants who were originally part of a larger study conducted by Brown University in 2010. That study identified a gene variant, common among Samoans, which appears to be associated with risk of both obesity and diabetes (<http://www.nature.com/ng/journal/v48/n9/full/ng.3620.html>). The Soifua Manuia study aims to explore the influence of this gene in more detail and to help understand what preventative interventions may be put in place to protect Samoans from obesity and related conditions. Participants will receive assessments of their health (BMI, body fat using the iDXA scanner,

blood glucose control (HbA1C and oral glucose tolerance test), and blood pressure), their physical activity and their diet. They will also share information about their lifestyle, health concerns, and actions they are already taking to promote health.

Recruitment for the study began in August and will continue until December 2018. We have been grateful for the cooperation of the mayors and womens representatives from Fagalii and Moataa and look forward to working with many other villages across Upolu.



*Thank you Fagalii and Moataa for being our first study villages!*



**30 out of 500 participants have been recruited... A good start!**

# Fofoaga o le Ola (Beginning of Life) Study Updates

The Fofoaga o le Ola study is focused on understanding how mother's health during pregnancy may influence the health of her child as they grow and develop in the first few months of life. Working in close collaboration with obstetricians from the National Health Service the research staff are working to identify prenatal care behaviors and practices that may be beneficial for child health. The team are working on two main activities: (1) working with clinical record data to determine whether poor infant outcomes can be detected during pregnancy using information about the growth of babies in the womb; and (2) recruiting mothers to participate in a study of infant health and growth. Mothers are joining the study after their 36th week of pregnancy and participating until their infants are four months of age. The body size of the infant is closely measured along with maternal health and infant feeding practices. So far, more than 60 mothers have enrolled and we just welcomed our 42nd baby!

We are still recruiting pregnant women at the NHS clinics on Monday, Tuesday, and Thursday mornings. If you or anyone you know is at least 37 weeks pregnant and wants to be a part of this exciting research, please contact us at 765 8428.



*Study leader Kendall Arslanian and research assistant Theresa Atanoa love spending quality time with participants!*



# Ola Tuputupua'e (Growing Up) Study Updates

Ola Tuputupua'e started in 2015 when 319 mother-child pairs were recruited from 10 villages around Upolu. Children were 2-4 years of age at the time of recruitment and the goal is to re-contact these families every two years until the children reach adolescence. In doing so, we hope to understand when obesity risk emerges among children and what behaviors can promote healthier growth.

The second wave of the study was completed from May to August this year. We were able to re-recruit 235 of the child-mother pairs who were surveyed in 2015, along with 188 new pairs who we look forward to meeting again in 2019. Our big thanks to the 10 villages across Upolu who participated: Lepea,

Moataa, Magiaga, Tuanai, Falefa, Solosolo, Lotofaga, Utualii, and Saleimoa. A subset of 84 of the Ola Tuputupua'e participants wore accelerometers for one week to measure their physical activity and then came to our lab space to be scanned on our iDXA, which gave us information about their bone health and fat and lean tissue composition. We are excited to be the first to ever scan children on an iDXA in the Polynesia region! We are putting together a summary of our results to give to each study village. We won't be recruiting again until 2019, but we will share results from the study in upcoming newsletters.



*With the Lotofaga Women's Committee after a successful day. See you in 2019!*