

A-HA NEWS

Innovative agri-food
and nutrition research
for healthy aging

2012

A-HA team enhancing foods for better health

Collaborative research project underway

Malnutrition is a common problem for older adults living in long-term care, and the A-HA team is working on solutions. Lisa Duizer, Ph.D., from the Food Science department at the University of Guelph, has received funding from the Ontario Ministry of Agriculture, Food and Rural Affairs in partnership with the University of Guelph (\$109,700) to lead a project aimed at enhancing the nutritional and sensory qualities of foods served in retirement and long-term care (R/LTC). The research team includes fellow A-HA researchers, Heather Keller, Ph.D., R.D., FDC (Schlegel Research Chair in Nutrition & Aging, University of Waterloo), Alison Duncan, Ph.D., R.D. (Professor in Human Health and Nutritional Sciences, University of Guelph), and Ken Stark, Ph.D. (Associate Professor in Kinesiology, University of Waterloo).

The team will be identifying the macro and micronutrients

of particular importance for seniors, those that tend to be below recommended intake. Food items that can feasibly be used to deliver these nutrients will also be identified, taking into consideration seniors' preferences and food preparation in R/LTC. The team will trial different ways of encapsulating or packaging the nutrients of interest and will incorporate these formulations into various foods. Sensory and consumer acceptability testing will ensure that the foods taste great and that the nutrients will be delivered intact. The feasibility of preparing and serving these enhanced foods will also be studied.

This research will promote healthy aging for older adults by raising awareness about their nutritional needs and also identifying strategies to improve nutritional status. Micronutrient supplementation is costly, particularly in long-term care, and enhanced foods may serve as

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Stay tuned to the A-HA website (aha.the-ria.ca) for details as this project progresses.



a more affordable option, while also being preferred by residents. The results will also be important for Ontario's agri-food sector, as many companies supplying food service are in-province and have the ability to source local agri-foods. Producers and food industry will understand how their products can be enhanced to achieve maximum consumer satisfaction for both taste and nutrition for the growing older adult market.

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A-HA Researcher, Lisa Duizer, Ph.D., Food Science at the University of Guelph, is leading a project aimed at enhancing foods for seniors living in retirement and long-term care.



Lisa Duizer, Ph.D., and Masters student Nila Ilhamto developed a resource to provide food service staff with helpful tips regarding the preparation of pureed foods. It is available at aha.the-ria.ca.

New Resource

Tips for better pureed foods

Many older adults living in long-term care (LTC) require texture modified diets, but preparing nutritious purees that are the right texture can be a challenge. In order to address this issue, Lisa Duizer, Ph.D., and Masters

student Nila Ilhamto have developed a resource that provides food service staff with helpful tips.

Over the past year, the research team developed recipes for pureed foods that are tailored to the sensory

and nutritional needs of older adults with swallowing difficulties. They selected Ontario turkey and carrots to create nutrient-dense formulations and then used sensory profiling and consumer acceptability testing to identify the

purees older adults preferred. The results were incorporated into the resource “Tips for Better Pureed Foods” in order to share the information with nutrition managers, dietitians and food service staff in LTC. The resource provides:

- **Recipes! For pureed turkey and carrots made with local products that address the sensory and nutritional needs of older adults.**
- **National guidelines for preparing texture-modified foods. Although Canada doesn't have national standards, the resource suggests helpful guidelines used in other countries.**
- **Information about equipment.**
- **Profiles of different thickeners, their nutritional qualities, and how they can be used (e.g., skim milk, flax flour).**
- **Tips for garnishing.**
- **Checklist to assess the texture of the final product.**

The resource is available online at aha.the-ria.ca. Hard copies can be requested by contacting Hilary Dunn at hadunn@uwaterloo.ca. For more information about this project, check out A-HA's online Projects page, aha.the-ria.ca/projects.cfm.

Coming Spring 2013

Innovative agri-food and nutrition strategies to improve quality of life for older adults

There is a collection of research resulting from A-HA projects that needs to be shared with older adults, health professionals and staff in retirement and long-term care (R/LTC). With funding from the Canadian Institutes of Health Research (CIHR) Institute of Nutrition, Metabolism, & Diabetes, the A-HA team, led by Heather Keller, Ph.D., R.D., FDC, will host two half-day dissemination events in spring 2013. To increase reach and accessibility, the events will take place at local R/LTC communities, the Village of Winston Park in

Kitchener and the Village of Humber Heights in Etobicoke.

The events will allow researchers to connect with a variety of knowledge users including community members, staff and residents in R/LTC, health professionals, industry and government representatives and academics. Bringing these groups together will help to facilitate future interdisciplinary collaboration and identify priorities in agri-food, nutrition and healthy aging research. Students will also be included and encouraged to present their research, helping

to build capacity in this area.

The A-HA team will discuss the importance of mealtime and how to optimize the dining experience, how to create nutritious and enjoyable texture modified foods, the role of omega-3 fatty acids in older adult health, and information about functional foods for healthy aging. In addition, there will be a “marketplace” theme to display resources relating to food and nutrition initiatives, with a focus on promoting local agri-foods. Please visit aha.the-ria.ca to learn more about these exciting events.

Measuring mealtime satisfaction

Mealtime is one of the most important aspects of the day for residents in long-term care and retirement homes. The experience can affect how much food we eat and therefore our overall nutritional status. Older adults are at an increased risk of malnutrition and this can lead to a host of negative health outcomes (e.g., decreased functionality, fractures, increased risk of hospitalization and mortality). In order to reduce the risk of malnutrition it is important to make mealtimes enjoyable so that food intake can be optimized. Heather Keller, Ph.D., R.D., FDC, Schlegel Research Chair in Nutrition & Aging, has



developed a questionnaire to measure older adults' mealtime satisfaction in order to understand how to improve the mealtime experience.

The 15-item questionnaire was developed with input from focus groups to ensure

that the questions reflect what older adults feel is important at mealtimes. Questions assess the visual appeal of the food served, variety, and taste, but also the atmosphere in the dining room and connections with staff and tablemates.

The tool is now being trialed in retirement homes to determine its reliability and validity. Residents will be asked to complete the questionnaire twice with a separation of three weeks to determine if responses remain consistent.

The results of this research will be essential for future projects as there currently isn't an easy and accurate way to find out residents' views surrounding mealtime. Being able to measure changes in residents' satisfaction can be used to test whether an intervention (for example, family-style dining) can improve mealtime experience and therefore nutritional status.

Event Highlights

March 22, 2012

A-HA/GFTC Innovation Breakfast – Formulating Foods for the Aging Population

● A-HA co-hosted a very successful Innovation Breakfast with Guelph Food Technology Centre, nearly 100 people were in attendance for the presentations. Heather Keller discussed the immense opportunities for the food industry to create nutritionally enhanced foods for older adults, Lisa Duizer discussed how our senses change as we age and how this can affect product development, and Campbell's showcased their initiative to increase vitamin D in their mushroom soup. Select presentations are available at aha.the-ria.ca/resources_presentations.cfm.

May 3, 2012

Going Local: Bringing the Benefits of Ontario Agri-foods to Long Term Care

● The theme of this A-HA event was to identify linkages between Ontario agriculture, food and health as they relate to texture-modified diets for older adults. In addition to sharing the results of an A-HA research project that developed recipes for pureed foods using local products, presenters also spoke about the nutritional needs of the aging population, farming myths, and strategies to bring local foods into the public sector. Feedback forms demonstrated the event was well received, and many planned to use the information provided in practice. Presentations are available at aha.the-ria.ca/resources_presentations.cfm.

May 23-25, 2012

A-HA @ Canadian Nutrition Society Annual Meeting

● A-HA participated as an exhibitor at this year's Canadian Nutrition Society Annual Conference held in Vancouver, BC. Two research projects being led by A-HA researchers were discussed at the conference: Heather Keller's work with the Canadian Malnutrition Task Force and Alison Duncan's research looking at older adults' understanding of functional foods. The A-HA exhibit featured our latest newsletters, *RIA Five-Year Report*, and information about the newly developed resource, *Tips for Better Pureed Foods*. The event provided great exposure for our current research and knowledge translation initiatives.

November 7, 2012

Health Professionals' Day – Hot Topics in Food & Farming

● For the 4th year in a row, A-HA co-hosted the annual Health Professionals' Day. This year's theme was "Hot Topics in Food & Farming." Presentations covered topics such as the science and safety of genetically modified food, organic and conventional farming, and education efforts surrounding sodium reduction. The event also included a "What's Hot" exhibit featuring presentations on A-HA's research efforts, the new barley health claim, and dietitians' views on soy safety and health benefits. Presentations are available at aha.the-ria.ca/resources_presentations.cfm.

Spreading the word

A-HA is committed to knowledge translation & transfer (KTT) and sharing the latest research with a wide variety of stakeholders. The team holds a three-year KTT grant, led by Alison Duncan, Ph.D., R.D., from the Agri-food and Rural Link program (uoguelph.ca/omafra_partnership/ktt), the knowledge mobilization arm of the Ontario Ministry of Agriculture, Food and Rural Affairs in partnership with the University of Guelph.

The funding, which began in September 2010, has enabled A-HA to advance multiple KTT activities including stepping into the social media arena to share the latest in research, news and events with a wider audience. Currently, A-HA is engaged in Twitter and Facebook, and involves students in the A-HA blog, to help develop their ability to distill research jargon into plain language. Over the past year, A-HA's Twitter followers

A-HA is committed to sharing research results related to healthy aging as there is huge potential to enhance quality of life for older adults through the innovative use of food and nutrition strategies.

Stay connected with A-HA's social media

Follow us on Twitter
[@foodhealthaging](https://twitter.com/foodhealthaging)

Like us on Facebook
Agri-food for Healthy Aging

Read our blog
aha.the-ria.ca/blog

Visit our website
aha.the-ria.ca



Attendees at the 2011 Health Professionals' Day engaged panel experts to discuss the latest food innovations for health.

and 'likes' on Facebook have doubled. A-HA also maintains an annual in-print newsletter, as many of the participants in research are seniors in retirement and long-term care, who may not have readily available internet access.

Another exciting component of A-HA's activities is the development of a research-based toolkit to educate health professionals about functional foods and how they can contribute to overall health for older adults. The toolkit stems from a research project led by Duncan and funded by the Canadian Foundation for Dietetic Research and includes information about the regulations surrounding functional foods, particularly in regard to packaging, to help registered dietitians and therefore consumers understand the surplus of material found on everyday items (e.g., cereal, yogurt, juice). The

toolkit will soon be available on our web site, aha.the-ria.ca. Please stay tuned for updates.

A-HA also acts as Co-Lead for the Seniors Health Knowledge Network's (SHKN, formerly SHRTN) Nutrition Community of Practice (CoP) to connect with new stakeholder groups (e.g., Dietitians of Canada, Ontario Society of Nutrition Management) and develop relevant resources for Nutrition CoP members. This year, the CoP hosted numerous webinars, one of which discussed the challenges and opportunities to increase local foods in the public sector, and another shared strategies for creating improved pureed foods.

For a description of all the KTT activities resulting from this project, please visit the A-HA website. You can learn about the KTT events in Event Highlights on page 3.

Join SHKN's Nutrition Community of Practice!

The Seniors Health Knowledge Network's (SHKN formerly the Seniors Health Research Transfer Network) Nutrition Community of Practice (CoP) was created to link practitioners involved in the nutrition care of older adults. The CoP is committed to promoting evidence-based

nutrition care by supporting knowledge exchange between members, disseminating best practices and stimulating research on food and nutrition issues for older adults. A-HA and the Schlegel-UW Research Institute for Aging along with Dietitians of Canada (sponsoring agency)

act as community leads and participate in monthly planning meeting with members of the core working group.

Join the nutrition community by going to seniorshhealthknowledgenetwork.com and accessing practice relevant resources, archived webinars and upcoming events.

The Agri-food for Healthy Aging (A-HA) initiative is a collaborative research group created through the efforts of the Schlegel-UW Research Institute for Aging (RIA), University of Guelph, University of Waterloo and MaRS Landing. By exploring linkages between agriculture, food, nutrition and human health, A-HA aims to realize innovative opportunities for Ontario's agri-food and health sectors to improve health and wellbeing of older adults.



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