



President's Message

It is an absolute pleasure and privilege for me to be able to address you as SSIB President. I have been a member of SSIB since I was a PhD student and I really feel we have something special in our Society in the combination of amazing and influential science, warm camaraderie and support for new investigators.



Suzanne Higgs, PhD
President, SSIB

I would first like to thank Alan Watts, as Past President, for his hard work and achievements during 2014-15 and to acknowledge his exemplary leadership and support. It is a hard act to follow. I would also like to thank all current and outgoing officers and committee members who give their time generously to SSIB. In particular, Ruth Harris has stepped down as Treasurer after many years of excellent service. Thanks also to outgoing Board Members (Bob Ritter, Kellie Tamashiro and Margriet Westerp), Programme Committee members (Kim Kinzig, Laurence Nolan and Jessica Santollo) and members who have served on other SSIB committees that are vital to the health of the society (Michael Lowe and Michelle Lee). Your willingness to work on behalf of SSIB is very much appreciated. We are also indebted to SPLtrak, who, as executive management providers, support all the activities of SSIB with the utmost professionalism, diligence and collegiality.

Congratulations to new officers Sue Grigson, who is President-Elect, and Kellie Tamashiro, who has taken on the role of Treasurer. Derek Daniels continues his superb work as Secretary. We also welcome new SSIB Board Members, Kathy Kotz, Michael Lowe and Guillaume de Lartigue and three new members of the Programme Committee, Linda Rinaman, Kerri Boutelle and Laura Berner, as well as new representatives on the Finance Committee (Matthew Hayes), Long range Planning Committee (Tanja Adam and Elizabeth Mietlicki-Baase), Nominations Committee (Susan Carnell, Alison Ventura and Keith Babbs), Membership committee (Jason Thomas, Carrie Ferrario and Sofia Bouhlal), and Public Communications Committee (Haifei Shi, Shana Adise, Andrea Tracy, Alicia Doerflinger and Amy Reichelt).

(CONTINUED ON PAGE 3)

From the Editor

This issue brings many kinds of news. The year has been a tough one, as we have lost several members. Most recently, Tim Bartness and Randall Sakai have left us, and they are remembered in this issue. You can contribute to funds for SSIB awards named in their honor by visiting the SSIB website.

You can also learn about the New Investigator Advisory Board, the Center for Healthy Eating and Activity Research, an improved method for intraoral cannulation, a new edition of a book, and even a little SSIB history.

I will be stepping down as editor after the next issue, so the Society needs someone to take my place. Life as the editor is easy, and greatly simplified by our team at SPLtrak, who arrange the collected materials into a finished product that can be viewed online or downloaded. Members have provided me with great articles and no doubt will continue to send information to my successor. The editorship is a great way to contribute your efforts to SSIB, and does not require a great deal of time. If you'd like to volunteer, or learn more about the process, write to me: kackroff@gc.cuny.edu.



Karen Ackroff, PhD
Editor, SSIB Intake

In This Issue

MEMBERSHIP COMMITTEE	2
NEW INVESTIGATOR ADVISORY BOARD	2
TIM BARTNESS IN MEMORIAM	4
NOTE FROM HARRY KISSELIFF	4
RANDALL SAKAI IN MEMORIAM	5
CHEAR LAB PROFILE	7
OPPORTUNITIES	8
MYERS IO CANNULA	8
MEMBERSHIP PUBLICATIONS	9
25 YEARS AGO	10

Membership Committee

Recruit a new member today and discount your dues.

The SSIB will continue to offer a 50% reduction of your membership dues if you recruit a new Regular member this year (limit of one member per year). Contact the SSIB administrative office (ssib@ssib.org) with the name of your recruited new member and your discount will be applied the next time you renew your membership.

Encourage lab members to join.

Are all of your students and postdocs members of SSIB? If not, please encourage them to join the Society and benefit from the following:

- Reduced registration for the Annual Meeting
- Eligibility for New Investigator Travel Awards and other SSIB awards
- Involvement in the Society through participation in the Board and other committees
- Access to members only areas of the website, which includes job postings and the membership directory



Derek Daniels, PhD
*SSIB Secretary and
Membership Committee Chair*

The New Investigator Advisory Board

The New Investigator Advisory Board was created to solicit input from students and postdocs across disciplines and geographical areas, in order to inform the SSIB Board of Directors about the ideas and concerns raised by a more diverse group of SSIB members. The Advisory Board will also plan events (social and career-development) for the Annual Meeting.

In addition, this group is intended to train enthusiastic early career investigators in leadership, consensus building, and event planning, and hopefully provide opportunities to interact with the SSIB Board and committees, so that members will be prepared to take on other service roles within SSIB.

This year, the New Investigator Advisory Board members are:

Sara Hargrave (New Investigator Representative, SSIB Board of Directors)
Barkha Patel
Michael Kendig
Miranda Johnson
Myrtylle Gumbs
Nicola Buckland
Samantha Kling
Yada Treesukosol

If you are interested in contacting the New Investigator committee, you may e-mail a representative (email addresses are listed in the SSIB directory), or direct inquiries to: ssibnewinvestigators@gmail.com



SSIB Intake

Society for the Study of Ingestive Behavior Newsletter

Volume XXV, No.1

Editor

Karen Ackroff, PhD
KAckroff@gc.cuny.edu

Executive Manager

Jamie Price
jamie@spltrak.com

SSIB Board of Directors

Officers

President
Suzanne Higgs, PhD
President-Elect
Patricia Sue Grigson, PhD
Past-President
Alan Watts, DPhil
Secretary
Derek Daniels, PhD
Treasurer
Kellie Tamashiro, PhD

Board of Directors

Christine Feinle-Bisset, PhD
Diana Williams, PhD
Mitch Roitman, PhD
Dana Small, PhD
Kevin Myers, PhD
Michael Lowe, PhD
Catherine Kotz, PhD
Guillaume de Lartigue, PhD

Student Representative

Sara Hargrave, MS

Honorary Board Member

Harry R. Kissileff, PhD

SSIB Intake is published biannually by the Society for the Study of Ingestive Behavior. SSIB members receive Intake as a benefit of membership.

SSIB Intake welcomes letters to the editor. All material submitted for consideration is subject to editing and condensation. Advertising rates are available from the SSIB central office.

SSIB Intake is the official newsletter of the Society for the Study of Ingestive Behavior.

President's Message (continued)

(CONTINUED FROM PAGE 1)

I am also pleased to announce that we have a new committee formed entirely of early career researchers that is chaired by Sara Hargrave (see the website for details ssib.org). This committee will be working to improve the experiences of new investigators and will provide important input to the board. I believe that the enthusiasm of our volunteers is a reflection of the vibrancy of SSIB and I would encourage anyone who is interested in getting more involved in the work of the society to consider responding to the call for nominations to society positions when it comes round and/or to get in touch with me. I am pleased to say that the feedback we have received on the meeting in Denver has been very positive.

I wish to thank members for providing feedback, which is most valued. Based on the comments the Programme Committee will look to see if it is possible to include some additional free time in the schedule. The scientific content of the conference was as usual excellent and it was great to see once again, that individual sessions were enhanced by integration of topics from both Track 1 and 2. I was extremely impressed by the quality of the presentations by early career researchers and very pleased that, due to the support from Novo Nordisk and the SSIB membership, we were able to fund a record number of New Investigator Travel Awards.

The generous support we receive from all our valued corporate sponsors and individual donations is vital for us to maintain the quality of the meeting and to be able to support and recognise the talents of outstanding researchers from early to distinguished career level. To help maintain this level of support, I urge all of you to consider making a donation this year, however small, to SSIB. It is very easy to do through the website (<http://www.ssib.org/web/donate.php>), and for a small society like SSIB, every donation counts. For our US members, please remember that you may be able to claim this as a tax deduction if you donate before the end of December. Please also contribute to the health of the society by ensuring that all in your lab are SSIB members and do pass on the word about SSIB to colleagues who have yet to join.

I am very excited about the 2016 meeting that will be held in the beautiful city of Porto in Portugal from July 12 – 16. Porto is best known as the historic home of port wine but also has a great reputation for its varied and delicious cuisine. The conference venue is the 19th Century Customs house, located on the River Douro in Porto's Historic City Centre, which is designated a World Heritage Site by Unesco. It is 10 minutes from the main hotels in Porto and less than 30 minutes from the International Airport and train stations. The Programme Committee, headed by Mitch Roitman, are already working hard to ensure that the science at the meeting will be top notch. Please submit your ideas for sessions so that the meeting content can reflect the wide range of interests of our members and the most current and influential ideas. I look forward to welcoming you in Porto for a fantastic combination of intellectually stimulating symposia and gastronomic and touristic delights!

A new development for SSIB is the training Directory that is now on the website (<http://www.ssib.org/web/graduate-programs.php>). This listing will enable prospective applicants interested in training in any aspect of the field to find programs suited to fit their needs. Because Ingestive Behavior is a relatively small, interdisciplinary field, such programs are often subsumed under larger branches of science, such as neuroscience, psychology, physiology etc., and may therefore not be easy to locate. The hope is that the directory will help attract new students to the study of ingestive behaviour and highlight the excellent training programme available worldwide.

Finally, it is with great sadness that I have to pass on the news that two figures who have played significant and important roles in SSIB have passed away recently. Tim Bartness was President of SSIB from 2008-2009 and served on numerous SSIB committees. He was a staunch supporter of the society and in particular a great advocate for early career researchers. Randall Sakai was the recipient of Epstein Award in 2002, served on the SSIB board and other committees and was a keen mentor and supporter of new investigators. He was also Editor of Physiology & Behaviour for many years and a supporter of the SSIB Special Issue in the journal. Both are remembered for their excellent contributions to the science of ingestive behaviour and their dedication to SSIB in the tributes in this newsletter. Our thoughts are with their family, loved ones and friends. Tim will be honoured by an award in his name for the best oral presentation by a new faculty member at the Annual Meeting. Randall will be honoured by a New Investigator Travel Award in his name. These awards are made possible by generous donations to SSIB and we thank all those who have contributed. There are links on the website for anyone who wishes to make a donation specifically to these funds.

Suzanne Higgs, PhD
President

Timothy J. Bartness, PhD

Tim Bartness died on September 24, 2015 in Atlanta, GA. He was 62 years old and had been battling multiple myeloma. His impact on obesity and ingestive behavior research and on his fellow scientists is noteworthy. His interests were broad and he contributed insightfully to our knowledge of adipose (WAT and BAT) sympathetic and sensory nervous system innervation, neural control of WAT lipolysis and BAT thermogenesis, obesity reversal, neural control of foraging and hoarding, and photoperiodism/melatonin receptor signaling. Tim's work has been funded by a National Institutes of Health grant for 27 consecutive years and was recently renewed for the next 10 years via a NIDDK MERIT Award. His work is widely cited and can fairly be said to have changed thinking about the brain-adipose and adipose-brain axes.



Tim demonstrated his leadership in many ways including multiple and continuous stints on NIH study sections where he was a tireless advocate for the support of quality neural and neurobehavioral research on energy balance control and an incessant voice for the inclusion of appropriate peer reviewers on otherwise diverse panels. He was an advocate for early career investigators in various ways including his championing the inclusion of the professional development session at the SSIB annual meeting.

At Georgia State University, his long-term home, he taught a course he designed called "survival skills" to enhance the writing and presentation skills so important for graduate student success. He was active in three scientific societies, SSIB, the Obesity Society (TOS formerly NAASO) and the Society for Behavioral Neuroendocrinology. His heart was closest to SSIB and he worked for its success in many ways including service as President, on its Board, and as an ardent advocate for annual giving. Tim was a dedicated mentor of graduate students (Masters [7] and PhD's [15]), postdocs [13] and research scientists [2]. Tim's loyalty and generosity were among his most admirable qualities and the impact of his death is reverberating and will reverberate among his numerous colleagues and many friends and trainees across the world. A fuller remembrance and discussion of Tim's scientific career will follow in the spring SSIB Newsletter; others will appear in *Obesity and American Journal of Physiology*.

Harvey Grill, PhD
University of Pennsylvania

Thank You

Thank you, SSIB

I did not adequately express my appreciation of the honor given me by the opening symposium at the 2015 meeting. Therefore, I would like to thank the Past President, Alan Watts, the Program Committee and its chair, Mitch Roitman, the four speakers, Kathleen Keller, Martin Yeomans, Christine Feinle-Bisset, and Rudy Leibel, for wonderful talks about their research and writing in a unique blend of illustrations of my own research. I don't think I have ever been as overawed by the show of appreciation, as at this meeting. This was a kind and thoughtful gesture that I never expected to receive, and I hope my heartfelt thanks are equally appreciated by those who worked so hard to make it happen.

I also want to thank the Board of Directors and anyone who might have been behind the scenes for honoring me with the naming of the post-doctoral research award in my honor.

I also want to thank all the members of SSIB, not just the ones who were at the meeting, but those who have remained members even if they didn't attend. My only hope is that SSIB continues to be the strong, nurturing professional society it has become, and that others will receive this kind of honor as they mature.

Harry R. Kissileff, PhD
Columbia University College of Physicians and Surgeons

Randall Rikio Sakai

Randall Rikio Sakai passed away at his home in Hawaii in the late summer, 2015, and I was asked to summarize his contributions. Writing an obituary for one's close colleague and best friend is difficult, and at times hurtful, but here goes. I start with the basics. Born and raised in Hawaii, Randall Sakai attended the University of Washington for his undergraduate training; and although he was a zoology major, he spent most of his time working in the lab of John Simpson in the psychology department, investigating brain circuits controlling salt and water intake. My own lab was adjacent to John's at that time, and our labs plus those of other faculty with overlapping interests (Nancy Kenney, Ilene Bernstein, Jaime Diaz) created a rich and stimulating environment for students interested in ingestive behavior. Randall received his BS in 1982, and for his doctoral training he moved to Penn, working with Alan Epstein in the lab where Simpson had done his own post-doctoral work, continuing to work on salt/water balance. Randall quickly became immersed in the rich atmosphere at Penn, with its long tradition of investigating neurobiology focused on ingestive and related behaviors, and he made many life-long friends and colleagues there. After receiving his PhD in 1988, Randall moved to New York City to continue his training with Bruce McEwen's lab in neuroendocrinology at Rockefeller, where his interests broadened to include the neurobiology of stress to complement his already well-established reputation in the sodium appetite and fluid balance arena. At Rockefeller Randall also began developing his mastery of state-of-the-art molecular techniques. Alan Epstein died suddenly and tragically while Randall was at Rockefeller. Penn subsequently asked Randall to return to Philadelphia to manage Epstein's lab, grants and trainees in 1992; and the lab thrived as Randall brought in his own extramural funding and moved the lab in new and exciting directions, and Penn promoted him to research associate professor. He consequently accepted an offer to join the rapidly expanding Obesity Research Center based in the department of psychiatry and behavioral neuroscience at the University of Cincinnati in 1999, where he was promoted to professor in 2004. He remained at Cincinnati for the rest of his career.



Randall maintained his activity in researching the neurobiology of salt and water balance throughout his entire career, publishing numerous seminal reports and reviews. While at Rockefeller, he became interested in natural stressors and behavior and later established the visible-burrow system in which the behavior and physiology of rats housed in groups could be determined in individual animals. He was also among the first to link the cloning of mice (accomplished by his colleagues at the University of Hawaii) with metabolic problems (done by his then student, Kellie Tamashiro, in Cincinnati). Randall collaborated with friends around the world and especially in Cincinnati. He was interested in numerous other areas of research and gladly devoted time and energy to the projects of others.

Randall amply supplied his lab over the years with extramural support from the Guggenheim Foundation, NARSAD, the American Heart Association, NSF, and especially NIH. He published his research in the best journals and he successfully mentored numerous grad students and post-docs, many of whom have gone on to successful careers in academia (e.g., Kellie Tamashiro at the Johns Hopkins University; Eric Krause at Florida State University; Christine McKittrick at Drew University; Susan Melhorn at the University of Washington; Michelle Foster at Colorado State University; Carlo Polidori at the University of Camerino, Italy; and Karen Scott at University College Cork, Ireland) and elsewhere.

Based on his research and his broad knowledge and interests, Randall was frequently invited to small specialized scientific meetings throughout his career, and he relished helping organize and attending them. This included periodic meetings such as the Benjamin Franklin-Lafayette Seminars (in La Napoule and later Frejus, France), the European Winter Brain Conferences in the Alps, the Winter Ingestive Behavior Meetings in St. Moritz, numerous national and international stress meetings, and of course meetings on salt and water ingestion. Randall won several honors and awards over his career, including the NARSAD Young Investigator Award, the Harry Frank Guggenheim Award and the NARSAD Independent Investigator Award. He was very active in SSIB, serving on its Board of Directors and as Director of Nominations. In 2002 he received SSIB's Alan N. Epstein Young Investigator Award.

In sum, Randall Sakai had a highly successful academic career spanning several institutions. He made key contributions both in publishing important reports and in training young scholars.

(CONTINUED ON PAGE 6)

Randall Rikio Sakai (continued)

(CONTINUED FROM PAGE 5)

The above documentation, while accurate as far as I know, does not begin to capture the Randall Sakai that we all knew and loved. He was an incredibly outgoing individual with a wonderful sense of humor who seemed to know everyone. At any gathering of scientists, whether a small group near the water cooler or at an enormous meeting such as Neuroscience, he was like a magnet, joking and laughing with everyone. I consider him to have been an important ambassador for the field of ingestive behavior. He tirelessly reviewed for NSF, NIH and many journals over the years, and was Editor of *Physiology and Behavior* until health problems overcame him. He knew, and befriended, virtually everyone he met in science. To this day, as well as throughout our long collegueship, I cannot encounter a group of scholars in any related field without many people asking about Randall. Everyone loved him.

Randall was an exquisite mentor. With his own trainees he was very hands-on, spending hours with each of them every week both in the lab and in other settings such as frequent lunches and parties at his house. He was far-and-away the best graduate student mentor we enjoyed here at Cincinnati, and this was with all of the students, not just his own. Importantly, this same warmth and helpfulness extended to any young scholars, anywhere. He took them under his wing at meetings, introduced them to the luminaries in the field, made cogent suggestions on their research, helped arrange collaborations for them when needed, gave them important career advice, and was a genuine friend.

Randall loved people and loved life, and he enjoyed many interests and activities beyond the lab. While in Seattle he took up skiing, mountain climbing and rock climbing, and became expert at all of them. He loved great food and great wine and was an exquisite cook, especially at grilling seafood. But Randall's favorite pastime by far was fishing. He developed his skills in Hawaii growing up, and went fishing wherever and whenever he could throughout his life. In Cincinnati he dedicated a room in his home to storing and displaying his massive collection of fishing gear and for tying flies. One of his favorite sayings was that it's not a good year if he doesn't get 60 days to go fishing. He made frequent trips to Hawaii, Alaska and other places to fish. I was privileged to join him on many occasions to fish in Florida (Gulf and Atlantic coasts and the Keys) and Louisiana. For many years a group of us (Randall, John Simpson, Rich Miselis and myself) went to Andros Island in the Bahamas to fly fish for bonefish. Randall was an expert who enjoyed teaching the rest of us, even while making fun of us.

In sum, Randall Sakai will be remembered fondly as a strong mentor and advocate for students, fellows and other young scholars. Everyone he knew benefited from his user-friendly approach and his broad knowledge of academia. He was extraordinarily generous with his time and his resources, and he always helped create a cohesive atmosphere that made everyone he touched feel nurtured and supported. He is greatly missed.

Steve Woods, PhD
University of Cincinnati

CHEAR Lab Profile

The University of California, San Diego Center for Healthy Eating and Activity Research (UCSD CHEAR) is dedicated to developing novel interventions for obesity and overeating, specifically based on basic behavioral sciences, cognitive science and neuroscience. The CHEAR team is comprised of Dr. Kerri Boutelle (director and professor of psychiatry and pediatrics), research scientists, experts in nutrition and physical activity, pediatric physicians, neuroscientists, post-doctoral fellows, graduate student researchers, post-bac research assistants, and undergraduate students.



CHEAR is currently conducting several funded clinical trials and experimental pilot studies with children, adolescents, and adults, which range from cue exposure studies targeting overeating, executive functioning training, satiety, cognitive training to food cues, Pavlovian learning, memory enhancement programs as well as traditional weight-loss programs for adults and youth. We are exploring the interplay between weight and neurocognitive functioning, and have developed several food-specific assessment measures in our lab to examine food specific attentional bias, impulsivity, working memory, and inhibition. Additionally, we are interested in food cue reactivity, and are measuring psychophysiological responses to food cues in conjunction with our treatment studies. When we are not connecting electrodes and measuring heart rates, our team can be found in the kitchen, portioning out snack foods and setting up taste tests for the many eating in the absence of hunger paradigms we run every week!

Here is a description of some of our studies that might be of interest to SSIB. We have two NIH funded studies evaluating the use of cue-exposure treatment to reduce overeating. Our cue-exposure study for overweight children (the Intervention for the Regulation of Cues, iROC) applies Pavlovian extinction principles by teaching children to resist their cravings to highly palatable foods. Be sure to check out our recent publication in Contemporary Clinical Trials (<http://www.contemporaryclinicaltrials.com/article/S1551-7144%2814%2900177-3/fulltext?mobileUi=0>) to learn more about this innovative design.

The Providing Adults Collaborative Interventions for Ideal Changes (PACIFIC) study is an RCT with four active treatment arms, including behavioral weight-loss, cue-exposure, combined behavioral weight-loss and cue-exposure, and a control condition in a year-long group treatment for weight loss in 260 adults. Recruitment is on-gong with treatment projected to begin in early 2016.

Dr. Kay Rhee (medical director of CHEAR) is examining the effect of a brief inhibitory control training program in pre-school children age 4-6 years old. This program uses visual and verbal scaffolding, pretend play, and self-talk to increase children's ability to resist unhealthy snack foods during the eating in the absence of hunger paradigm.

We are partnering with Dr. Susanne Higgs to evaluate a memory self-monitoring intervention. We are evaluating whether self-monitoring by recalling a previous meal has differential impact on adult weight loss compared to self-monitoring calories. This study, called Tracking, Recording, and Coaching Study (TRAC), just completed and analyses will allow for a better understanding of the impact that memories and traditional caloric self-monitoring have on weight loss.

In collaboration with the Egg and Nutrition Board, our Families and Breakfast Study (FAB) is comparing the effects on satiety of an egg breakfast versus a cereal breakfast in program targeting weight loss in overweight and obese children. Biological, behavioral and self-report measures of satiety will be assessed along with changes in weight status.

In collaboration with Dr. Adam Aron and Scott Freeman, we are evaluating behavioral responding and the ability to withhold responding to motivating stimuli in Pavlovian and operant conditioning in normal weight, overweight and obese adults. This study, called Pavlovian to Instrumental Transfer (PIT), will improve our understanding of individual differences in behavioral responding and cognitive control in the face of motivating stimuli. The UCSD Center for Healthy

Eating and Activity Research is located in La Jolla, California. We are currently enrolling participants of all ages for our no-cost treatment studies. Please visit our website (<http://www.obesitytreatment.ucsd.edu/>) to learn more about our research and the specific studies currently underway.



Opportunities

The Rinaman Research Group is recruiting a postdoctoral fellow for an NIH-funded research position at the University of Pittsburgh. Funding is available immediately and for a period of 1-3 years. Candidates should have a strong interest in using laboratory rats as experimental models for understanding the structure and function of neural circuits that orchestrate physiological, behavioral, and emotional responses to stress, including suppression of food intake, and/or the neural bases for depressive- and anxiety-like behaviors.

The ideal candidate will have a strong neuroscience and/or behavioral background coupled with molecular biology skills, such as RNA isolation and qRT-PCR, Western Blotting, primer design, construction and use of adeno-associated and lentiviral vectors for manipulating gene expression in the brain, etc.

The University of Pittsburgh boasts a very large, diverse, and high-quality neuroscience research community, with a successful and well-established professional development program for postdoctoral research fellows.

Potential candidates should contact Prof. Linda Rinaman (rinaman@pitt.edu) for additional information.

Myers IO Cannula

A Simpler, Less Invasive Method for Installing Intra-oral Catheters

Intra-oral catheters (IOCs) are useful in animal experiments that require delivering taste stimuli directly into the mouth. The most common use of IOCs may be the taste reactivity test. Originally developed by Grill & Norgren (1978), taste reactivity is the gold standard method for measuring animals' hedonic evaluation of taste solutions. I recently found a short paper in *Laboratory Animals* (Hintiryan, Hayes, & Chambers, 2006) which describes taste reactivity testing with a refined technique for implanting IOCs in rats. I have adopted this technique in my lab recently to good results, so I am writing to call attention to the paper in hopes others will also find it useful.

The traditional implantation technique routes the IOC over the zygomatic arch to the top of the head where it's secured with a cement head-cap, requiring scalp incision and skull screws. Instead, the refined technique begins at approximately the same place inside the mouth but only pierces the soft tissue of the cheek. The exterior end of the IOC is secured on the cheek with a washer and heat flaring.

I've found this method to be much simpler and to have several advantages without sacrificing catheter viability. Importantly, the refined technique is much less invasive, meaning it is better tolerated by the rats and also allows rapid resumption of the experiment after surgery. The traditional technique unavoidably causes inflammation and a period of hypophagia, and sometimes requires extended analgesics. In their report Hintiryan et al. provide post-op body weights after both techniques and the refined method is clearly beneficial. With this technique we usually proceed to behavioral testing two days after surgery. Even if your experiment already involves head-caps for ICV cannulas, the refined IOC technique may still be better since it would likely reduce potential postoperative orofacial discomfort.

A potential drawback is this method provides a less secure attachment point for the infusion tubing during a behavioral test. The connection made at the cheek makes it easier for the rat to grasp and possibly disconnect the tubing. Habituating the rat to the infusion apparatus and water infusion on days preceding the critical tests seems to be helpful. It also helps to have the infusion tubing arriving from a swivel held overhead by a lever arm that is precisely balanced so the rat feels as little weight as possible at the connection. (Ask me how to build a \$4 lever arm from parts at your local home store!) In our most recent taste reactivity experiment we tested 33 rats, and only 2 of the 33 rats disrupted the connection and required re-testing. It is necessary to flush the IOC with water occasionally prior to use, as they do get blocked with masticated chow. But their much shorter length makes these IOCs easy to keep patent. In sum, I am pleased with Hintiryan's refined technique and I believe that many other SSIB members (and their rats and their Institutional Animal Care officers) will likely prefer it.

Kevin Myers, PhD
Bucknell University

References

- Grill, H. J., & Norgren, R. (1978). The taste reactivity test. I. Mimetic responses to gustatory stimuli in neurologically normal rats. *Brain Research*, 143, 263-279.
- Hintiryan, H., Hayes, U.L., & Chambers, K.C. (2006). Intraoral cheek fistulae: a refined technique. *Laboratory Animals*, 40, 456-464.

Member Publications

Meule, A. Back by popular demand: A narrative review on the history of food addiction research. *Yale J Biol Med* 2015; 88: 295-302.

Worobey, J, Tepper, BJ, Kanarek, RB

Nutrition and Behavior A Multidisciplinary Approach, 2nd Edition.

CABI, 2015. 272 pages.

ISBN-13 978 1 78064 444 8 (hardcover) and 978 1 78064 445 5 (paperback)

Robin Kanarek writes: "The second edition was published this summer. The book has been completely updated from the first edition, so while a second edition, it really is a new book."

Publisher's Description:

The relationship between nutrition and behaviour is bi-directional in nature, with nutritional factors able to affect activity and disposition, and behavior impacting diet and food intake. This book reviews these links, starting with their complex neurobiological basis, such as in the case of folate deficiency and cognitive decline. It also illustrates how behaviour may determine nutritional choices or status through peer modelling and poor dietary habits. Micronutrients and eating disorders are then critically addressed, with a review of current research methods and results, before extra-nutritional influencers on behaviour such as caffeine, herbal supplements and alcohol are discussed in the final section.

Table of Contents

- 1: Introduction
- 2: Concepts and Models in Nutrition and Behavior
- 3: Research Methods and Analytic Strategies
- 4: Direct Effects of Nutrition on Behavior: Brain–Behavior Connections
- 5: Short-term Effects of Nutrition on Behavior: Neurotransmitters
- 6: Effects of Chronic and Acute Forms of Undernutrition
- 7: B Vitamins, the Central Nervous System, and Behavior
- 8: Minerals, the Central Nervous System, and Behavior
- 9: Dietary Supplements and Mental Functioning
- 10: Bio-behavioral and Psychosocial Influences on Food Selection
- 11: Dietary Sugar and Behavior
- 12: Caffeine, the Methylxanthines, and Behavior
- 13: Alcohol, Brain Functioning, and Behavior
- 14: Eating Disorder Syndromes: Anorexia and Bulimia Nervosa
- 15: Behavioral Aspects of Overweight and Obesity

25 Years Ago: SSIB History

I promised to write this column periodically, to remind us of our origins. At the beginning of the '90s, SSIB was concerned with the history and language of its science, to judge by the columns appearing in SSIBlings, the newsletter at that time. We were still in the period before our first independent meeting, which occurred in 1992 after several meetings with other societies (EPA, a seminar at SfN, the joint meeting with NAASO (now TOS)).

In September 1990, Gerry Smith wrote about the history of science and its importance, noting "...the two most dreaded diseases of investigators — Prioritis and Technomania. Prioritis is characterized by an exaggerated view of the originality of your work." He quoted the neuroanatomist Walle Nauta: "Most claims of priority are evidence of poor scholarship." "... Technomania is much more prevalent among the young. ...some young investigators conclude that any problem can be solved by the application of a "modern" technique. ... Prevention through knowing the history of a problem is the best policy here because this will make it very clear that technique needs bright ideas and critical thought to make science move."

In the same issue, Harry Kissileff's philosopher's corner was "some unpalatable thoughts about sham ingestion". "The question is what, if any, type of evidence, would be sufficient to distinguish effects of treatments on sham feeding that are mediated by palatability changes from others such as the stimulus property serving as a cue for later or concurrent physiological events, or generalized change in motivational state?" This remains a difficult question.

1991 was Alan Epstein's presidential year, and we would lose him early in 1992. He wrote thoughtful letters about issues we confront in our science, and urged us to improve. In the May 1991 newsletter, Alan took the biological point of view and scolded us for misuse of language. "We seem to have picked up the bad habit of using the grand and dignified misnomer of "organisms" for the animals we use from the psychologists, and to understand why doing so is a semantic scandal recall who our subjects are. ... we and the psychologists use a few pests (rats and mice), a few pets (cats and dogs), and a few primates (man and some monkeys) in our research." He goes on to point out that "mammals" or even "animals" would be more precise words, as "most organisms are not animals" -- the word includes plants and unicellular life. He next discusses another abused word. "A stimulus is a chemical or physical agent that generates afferent activity in the peripheral nervous system or in the special senses. It is not anything that causes or changes behavior. Drugs, electricity, hormones, drives, moods, ideas, and pathologies all affect behavior but none of them is a stimulus." Finally, he notes that references to "the nervous system" are quite imprecise, as there are many kinds among other phyla. He suggests that we should be careful not to overgeneralize by using more specific language.

The 1991 issues of the newsletter were graced by Neil Rowland's article, "When is a (sham) drink a (sham) feed?" in January and the responses by SSIB members. Like Alan, Neil pointed out that the terms were being misused at times, and that "sham feeding" should be used for liquid that imparts calories. In the May issue, Eleanor Midkiff added that motivation to consume is an important consideration, citing the examples of sodium and ethanol solutions. And in the September issue, Ted Hall and Susie Swithers championed a developmental point of view, noting that the distinction between feeding and drinking sometimes overemphasizes the dichotomy while losing sight of the common features of ingestion.

Karen Ackroff, PhD
Editor

Sponsors



Save the Date - SSIB 2016



24th Annual Meeting of the Society for the Study of Ingestive Behavior
Porto, Portugal
July 12-16, 2016