

A breakthrough translational event for D3s

Global problem / Holistic attack

Welcome to our D3 Research Incubator
October 7th / 8th / 9th OR 8th / 9th / 10th, 2021
(depending on location)

WHY HAVE AN INTERNATIONAL D3 RESEARCH INCUBATOR?



**Workshop
Discussion
Document**



**Online
Workshop**



**Online
Incubator**



**Live
Symposium**



**D3G
Action Plan
& Manifesto**



**Social
Good**

If the D3 research community is to perform strongly as a “global choir”, it follows we must all **“sing from the same song sheet”** and have a translational repertoire ranging from **basic science** through **end-translation** into better **practice, policy** and **products** – all with a view towards **social good**.

Our ground-breaking **“research incubator”** event will leverage a powerful lineup of stakeholders – comprising clinical and public health practitioners, students, industry directors, scientists, research publishers and funders – to formulate a socially impactful repertoire and start a “collaborative songwriting” process.

This “second gig” builds on last year’s inaugural **online Workshop** which served as an introductory “cocktail party” showcasing the global strengths and diversity

of our D3 family. And looking ahead to next year’s **live Symposium in Toronto**, we hope today’s innovative “incubator start-up” concept will be extended across D3G’s other endeavours (education, policy, products etc), leading to a symphonic **“social-impact incubator”** powerhouse.

Before the show starts in October, registrants will be invited to join our “D3 garage band” rehearsals by critiquing the discussion framework documents (**Research Agenda & Guidelines**) being drafted by last year’s Workshop participants.

As always, we welcome questions and tips for improvement.

Check for updates at:
www.thed3group.org/toronto2020

SOMETHING FOR EVERYONE

Why should I attend the D3 Research Incubator?

CLINICIANS

- Good science often starts with clinical problems
- Clinicians know the problems with MH
- Want to help set the direction of problem-solving?
- Then attend and share your clinical experience!

SCIENTISTS

- Clinical problems always benefit from good science
- Scientists should know about the problems with MH
- Want to help set the approach to problem-solving?
- Then attend and share your scientific experience!

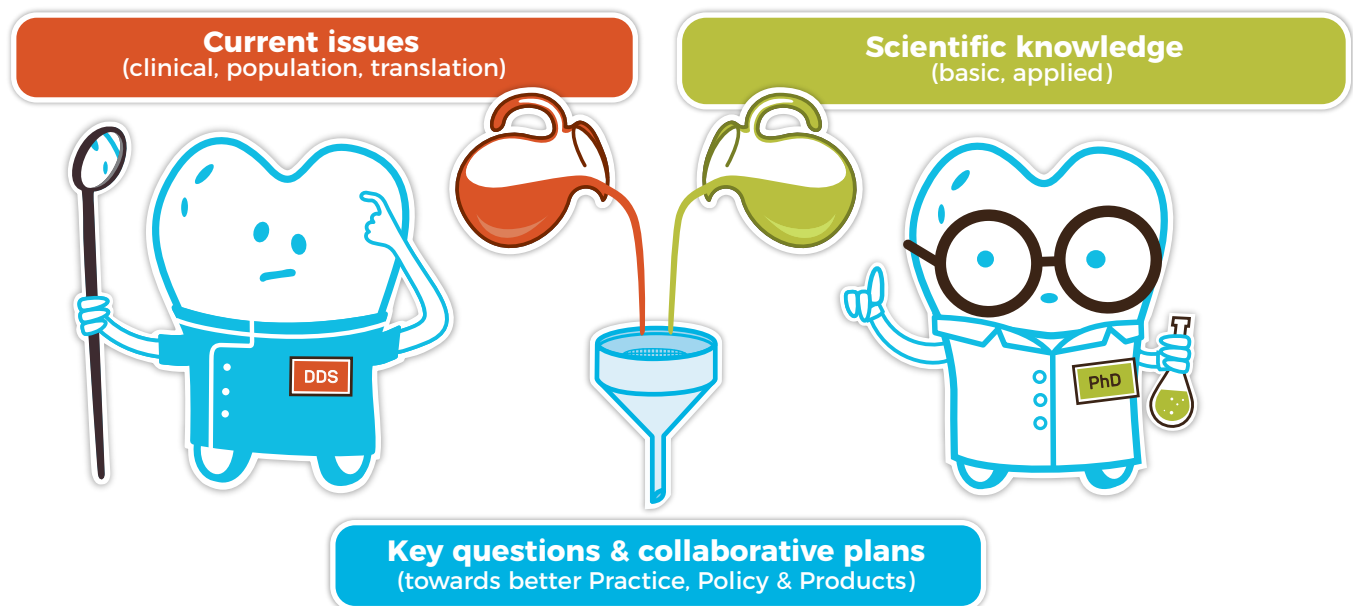
END-TRANSLATORS

- Good science gets better once effectively translated
- End-translators should engage “the MH problem”
- Want to help set the approach to problem-solving?
- Then attend and share your translational experience!

This “**cross-learning**” event is relevant to everyone from clinicians through to industry, research publishers and funders, and policymakers (so-called “**end-translators**”).

- Here for the first time is an opportunity for **clinicians** exposed to Molar Hypomin (e.g. therapists, hygienists & dentists, paediatric & orthodontic specialists, paediatricians) to voice their concerns about the day-to-day problems they face and ensuing needs for research.
- The same goes for **public health practitioners** and others battling to increase awareness of the [striking link between Molar Hypomin and childhood decay](#).
- **Scientists** and other **researchers** will find this a great opportunity to learn about an under-recognised yet potentially preventable global health problem, and to share their ideas on how it might be attacked across the research spectrum.
- Likewise, **end-translators** will have an unprecedented opportunity to share their perspectives on what's needed to collaboratively **strengthen research** and formulate **better practice, products** and **policy**, leading to **social good**.

WHAT IS OUR RESEARCH INCUBATOR CONCEPT?

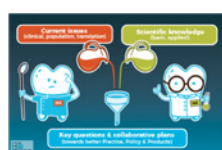


Simply put, practitioners (clinicians, public health) have great awareness of major problems that hinder the field whereas researchers (particularly career scientists) excel at finding useful answers. So, given D3G's translational aim to foster **top-quality investigations into key knowledge gaps**, we think it's important that practitioners and scientists understand each other's perspectives better, and also think ahead collectively towards eventual end-translation of research outcomes into “the 3 Ps” (practice, policy, products).

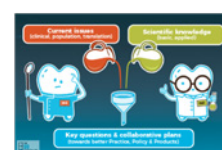
To facilitate such **cross-learning**, this first stage of our incubator concept involves: **(1)** practitioners illustrating current issues they face; **(2)** scientists outlining latest

research capabilities and understanding; then **(3)** these and other relevant parties (particularly “end-translators” comprising industry, publishers, funders & policymakers) collaboratively “filtering” this **status quo (1+2)** to arrive at **key researchable questions** and **actionable plans**. And to enable **effective intercommunication** among diverse stakeholders, we will again be using (and refining) D3G's translational “**chalky teeth lingo**” as pioneered at last year's Workshop. We anticipate this novel, cross-sector approach will provide a valuably holistic perspective on **what research should be prioritised** to benefit society, and **how it might be tackled best** at global scale.

DISCUSSION FRAMEWORK & OUTPUTS



A draft consensus
**D3 RESEARCH
AGENDA**
for “D3G-Toronto Events” and beyond



A draft consensus
**D3 RESEARCH
STANDARDS & GUIDELINES**
for “D3G-Toronto Events” and beyond

Given the translational nature of this event (diverse viewpoints & content, lofty goals & limited time), it's important to have a customised framework available to guide discussion – before, during and after the event. Better still, wouldn't it be great to use the development phase of this framework to **grow community** and **narrow consensus** before the official kickoff?

Consequently, building from the **discussion framework document** for last year's Workshop (available [here](#)), participants from that event plus early registrants for this Research Incubator are currently drafting a **consensus D3 Research Agenda** that lists what our community sees as the top

clinico-scientific questions and translational needs (e.g. **products, policy**) for a raft of topics spanning clinical practice, homecare, public health & medical prevention. A primary goal here is to marry scientific and clinical perspectives, leading to (dynamically) publishable outputs that can help advance the field. So register now and submit your "[pet peeves](#)" or "dream product" ideas to our D3 brain trust – who may in turn invite you to present them at the Incubator (if you wish).

FIXING OUR "ALPHABET SOUP PROBLEM"

The 2020 D3 Workshop identified **lack of research standards and guidelines** as the "numero uno" problem facing our field. Indeed, since "**MIH**" was defined 20 years ago, the academic literature has accumulated at least 21 other terms referencing "demarcated opacities" – **HSPM, DMH** and **IH** being the most famous. Yet key gaps remain (e.g. hypomineralised 12-year molars). Is this [shemozzle](#) of terms and acronyms good for science, clinical practice and communication? Or should we gather all involved parties (researchers, reviewers, editors, publishers, funders, educators, industry) and fix this "[alphabet soup problem](#)"? Arguing for the latter, we have drafted a set of **Research Standards & Guidelines**, embracing classification, definitions, terminology, grading and recording of MH. These are currently being vetted by our D3 brain trust and early registrants – so sign up soon and prepare yourself for some fascinating "incubation" of MH's future.



ORGANISING TEAM

HOSTS:

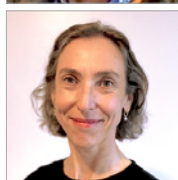
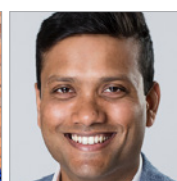
Ben Ganss
[University of Toronto](#)
Symposium co-chair



Michael Casas
[SickKidsToronto](#)
Clinical advisor



Mike Hubbard
[D3G@University of Melbourne](#)
Symposium co-chair



PRACTITIONER LEADS:

Azza Tagelsir (paediatric dentist, Boston, USA), **Vidal Perez** (paediatric dentist, Talca, Chile), **Morenike Folayan** (paediatric dentist, Ile-Ife, Nigeria), **Arun Natarajan** (paediatric dentist, Christchurch, New Zealand), **Paul Schneider** (orthodontist, Melbourne, Australia)

SCIENTIST LEADS:

Felicitas Bidlack (biologist, Boston, USA), **Derk Joester** (chemist/structural biologist, Chicago, USA), **Laurent Bozec** (biophysicist, Toronto, Canada)

END-TRANSLATION LEADS:

Coming soon

D3 Research Incubator

KEYNOTE CAMEOS



Realising **Molar Hypomin is the dental outcome of medical problems** during early childhood, how great would it be to start each webinar with inspiration from an expert on **medical-dental integration** and **translation to social good**? Well, we're thrilled to say **Martha Somerman, Janet Southerland** and **Maria Ryan** have kindly agreed to precis their respective journeys to the highest levels of medico-dental research, interprofessional education, and end-translation.

Martha (DDS, PhD) is a distinguished biomedical scientist and educator who recently retired from directorship of [NIDCR](#) at NIH-USA. She maintains prominent posts including Field Chief Editor of [Frontiers in Dental Medicine](#) – a new journal at the forefront of medical-dental integration and one of four titles participating in our [Frontiers Research Topic on Molar Hypomineralisation and chalky teeth](#).

Janet (DDS, MPH, PhD) rose from dental hygienist to senior leadership of two US dental schools. Today she leverages her influential roles at the [University of Texas Medical Branch](#) (Vice President of

Interprofessional Education, Institutional Effectiveness, Director of the Health Education Center, President-elect Texas Dental Assocn 9th District) to meld a holistic approach to interprofessional health education with social-good philosophy for serving under-privileged communities.

Maria (DDS, PhD) cut her research teeth as an oral biologist/periodontist then ascended to academic leadership roles at a US university. She is past President of the American Association for Dental, Oral and Craniofacial Research. Recently Maria migrated these skills to become [VP and Chief Clinical Officer](#) at Colgate Palmolive, a multinational company respected worldwide for its socially-supportive translation of science into better practice, policy and products.

Wow, what inspiration for us D3ers looking ahead! Keynote cameos will comprise a 5-minute presentation plus 5 minutes for introduction and questions – hopefully we can hear much more from these luminaries at a later date (our live Symposium is now pencilled for [October 2022](#)).

We thank **Martha, Janet** and **Maria** for their generous gifts of precious time.

See how you too can “**share D3 love**” via our “**Pay It Forward**” initiative ([sponsor a needy individual](#) to this Research Incubator, [other giving-back opportunities](#)).



D3 Research Incubator (online)

OCT 2021

TORONTO, CANADA

At a screen near you

Latest plans for D3 online Incubator
October 7th / 8th / 9th OR 8th / 9th / 10th, 2021
(depending on location - see world map)

EVENT DETAILS

- What:** 3x 2-hour webinar sessions (6 hours total)
When: October 7th / 8th / 9th OR 8th / 9th / 10th
(depending on location - see world map on right)
Time: 5-7pm USA-EST (Find your times [here](#))
Videos: Available to registrants at no extra cost
Cost:
- AU\$100 for D3G members, \$150 otherwise
 - Half price for lower-income countries
 - Possible sponsorship for low-income individuals

WEBINAR PROCESS

- Moderator and facilitators to guide sessions
- Invited and volunteer panellists
- Unlimited audience connections with online Q&A
- Questions accepted before event, some invites to present
- Separate poster session, selected winners to present at webinar

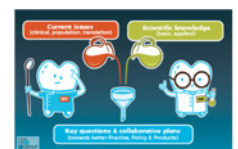
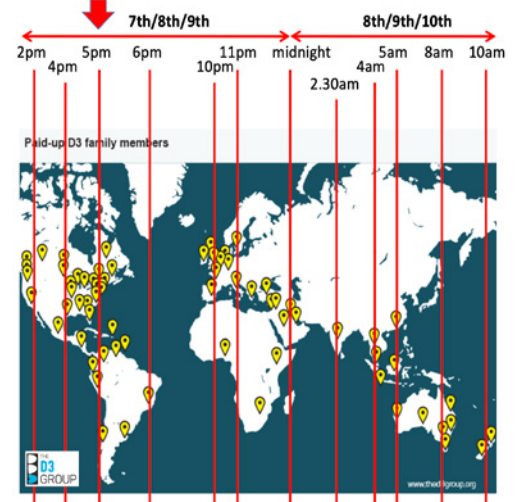
DISCUSSION FRAMEWORK DOCUMENTS

- Blueprint for future D3 research (Agenda, Guidelines)
- Currently being circulated to D3 Brain Trust worldwide
- Then seek input from other D3ers & Early Registrants
- Shared with all Registrants for pre-Incubator homework!

WHAT'S IN IT FOR ME?

- Learn the latest from D3G's unique cross-sector constituency and earn **7 CE/CPD hours** if so inclined
- Hear perspectives you'd never thought about!
- Help shape the future by contributing to discussions about research that will benefit better practice, products and policy
- Empower yourself to help your networks and benefit society by spreading the D3 message

5pm @ Toronto, October 7-9, 2021



A draft consensus
**D3 RESEARCH
AGENDA**

for "D3G-Toronto Events" and beyond

(i.e. another Discussion Framework document!)

7CE
HOURS

D3 Research Incubator

PROGRAM

6 RESEARCH AREAS OVER 6 HOURS

1. CLINICAL

DIAGNOSIS, PREVENTION & TREATMENT

What makes Molar Hypominen (MH) such a pain in the.....clinic?
What unknowns would you like evidence-based answers for?

2. HOMECARE

PAIN CONTROL, CLEANING & NUTRITION

Wouldn't it be great to have research-based recommendations for self-management of MH issues at home? Best toothbrush, toothpaste, diet.....??

3. PUBLIC HEALTH

SOCIAL & ECONOMIC COSTS, EARLY SCREENING

The socioeconomic burdens of MH appear huge, but better quantification is needed to make the case for early intervention and more research.

4. MEDICAL PREVENTION

CAUSATION, PATHOGENESIS, MEDICAL ALLEVIATION

It appears that, being an acquired condition, MH has potential to be medically preventable. So what are the key aetiological questions needing to be answered?

5. CLINICO-SCIENTIFIC STANDARDS

STANDARDISED TERMS, DEFINITIONS & CLASSIFICATIONS

How can scientific rigour be married with clinical practicalities and still make sense to non-experts? Answer: further development of D3G's translational standards & lingo!

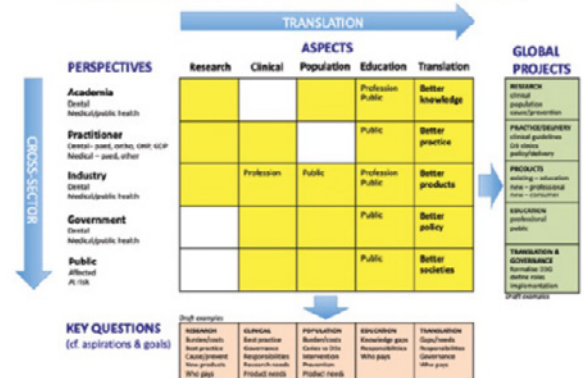
6. CO-LAB EFFORT & NETWORK

FUNDING COMPETITIVENESS, RESEARCH EFFICIENCY & GLOBAL UNITY

How can practitioners and researchers best team up to make a "global research army" that's both comprehensive and well-resourced?

KEY QUESTIONS, GLOBAL PROJECTS

COVERING ALL THE BASES – A cross-sector, translational roadmap for D3s



See: thed3group.org/toronto2020

D3G's PIONEERING INITIATIVES



100
1920 - 2020
CHALKY TEETH CENTENARY

SCIENCE BREAKTHROUGH



D3 Research Incubator

INCUBATOR FLOW

6 interconnected topics, each with clinical & scientific aspects

Clinical

Public
Health

Clinico-Scientific
Standards

Homecare

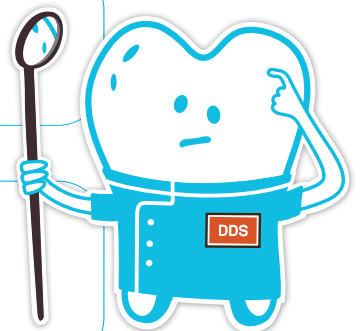
Medical
Prevention

Research
Network

Example session (Clinical), flowing from clinic to lab to “3 Ps”

A. Today's problems with MH

For example: **Clinical Session**
1. Diagnosis & Prognosis



B. Pressing research questions for HM teeth

e.g. criteria for grading demarcated
opacities & determining prognosis

C. Products (current & new ideas)

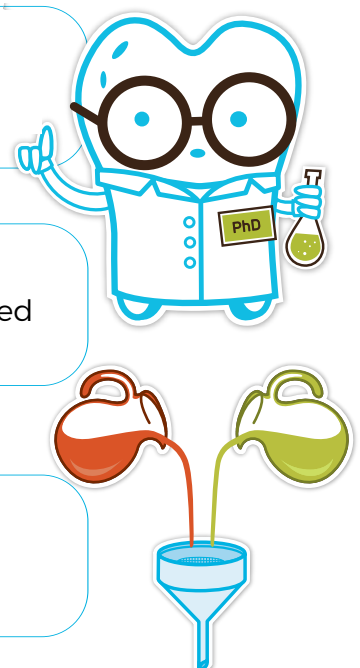
e.g. radiography (weak), QLF (weak),
charting software (poor for D3s)
e.g. new biomarker-based imaging

D. Research (applied & basic)

e.g. in vivo imaging, protein biomarkers
e.g. mineral chemistry / structure, applied
biophysics, enamel protein biology

E. Incubation & “3 Ps”

Better practice, policy & products
Panel discussion, audience Q&A



D3 Research Incubator

DAY SHEETS

Days 1 & 2

Introductory Stuff

Keynote Cameo

**Topic overview
(hosts & lead D3ers)**

**Additional perspectives
(panellists & guests)**

Posters Q&A

**General discussion
(audience & everyone)**

Day 3

Introductory Stuff

Keynote Cameo

**Topic overview
(hosts & lead D3ers)**

**Additional perspectives
(panellists & guests)**

Posters Q&A

**General discussion
(audience & everyone)**

Guidelines for e-poster presentations at D3G's Research Incubator, October 2021

WHEN AND HOW TO SUBMIT?

Submission deadline: Tuesday 28th September

Email e-posters and any enquiries to: Ben Ganss at b.ganss@utoronto.ca

WHERE DO POSTERS FIT IN AND WHAT TOPICS ARE OF INTEREST?

To complement the main webinar program – which involves brief talks on a strategic range of research-related topics followed by panel discussion then audience Q&A – we extend an open invitation for students and other researchers to share their project work, even if it's not fully baked yet (this is an Incubator aimed at hatching great ideas after all). While our D3 Incubator is primarily focussed on [Molar Hypomineralisation](#), comparative consideration of [other D3s](#), and research into underpinning fundamentals (e.g. enamel science, preventive dentistry), will be welcomed. We invite posters on any type of research, including but not limited to basic science, clinical case reports, public health or prevalence studies, clinical treatment challenges, impact on social well-being etc...

WHEN WILL POSTERS BE PRESENTED AND HOW?

The plan is that all e-posters will go online for viewing (by webinar registrants only) on **Thursday 30th September** – that is, one week before the webinars start on October 7th, Toronto time. On each webinar day, a “poster mini-session” will be allocated for discussion of posters.

1. The lead author (presenter) of the top-ranked poster – as judged for quality and general interest value –will be offered the opportunity to do a brief “3-minute thesis”-style presentation (3 minutes with no more than 2 slides, followed by 2 questions from selected panellists).
2. All other poster presenters will have the opportunity to respond to questions from panellists.
3. On day 3, the extended “open discussion session” (audience, panellists) will provide another opportunity for presenters to discuss their project work.

WHAT ARE THE TECHNICAL REQUIREMENTS?

Format: All e-posters should be prepared in Powerpoint (pptx)

Page set-up: One slide in widescreen format (width: 33.87cm height: 19.05cm)

Should include the following elements (see example below):

1. Presentation title
2. Presenter's name, co-authors, affiliation, and country
3. Introduction, objectives, methods, results, discussion/conclusion, acknowledgements
4. Tables/figures - clear titles and helpful legends please

Intellectual property: This is a “public” event with a broad audience including industry, so please exclude any information that is restricted in your perspective (e.g. commercially sensitive). D3G will not accept liability for any inadvertant disclosures of this nature.

EXAMPLE OF POSTER LAYOUT?

Note this is just an example for those less familiar with poster presentations. Feel free to adapt as suits your purpose and the audiences' desire to have a good story told clearly. Usually with posters, “less is more” – i.e. don't be tempted to cram every last detail in, as it's better to stick with the main points only and explain any details if asked.

