

## Writer's guidelines

for the Frontiers Article Collection on

### Molar Hypomineralisation and Chalky Teeth: From Developmental Physiology to Social Good

As explained in the online description ([here](#)), this **Frontiers Article Collection** is primarily intended to form the proceedings of D3G's **Toronto Symposia on Molar Hypomineralisation and Chalky Teeth** (i.e. **2020 International Workshop & 2021 Research Incubator**; see [here](#)). Note that other articles may be included when they support the following translational mission and guidelines.

The **2020 D3 Workshop** was particularly significant as a groundbreaking translational event because:

- (1) for the first time, a broad range of international stakeholders were brought together to discuss "**the Molar Hypomineralisation problem**" from their various perspectives.<sup>1</sup>
- (2) Discussions took place using **D3G's "translational lingo"**, which is a structured clinico-scientific language that enables participants to move seamlessly from public-friendly terms through to the technical terminology needed for dialogue by practitioners and scientists (see [here](#) and [here](#)).<sup>2</sup>

With support from our host Chief Editor (Developmental Physiology section, *Frontiers in Physiology*), the Toronto D3 Symposia's translational scope and language will be extended to this Article Collection, seeking to end up with a cohesive eBook that is helpful for generalists and specialists alike.

In this regard there are three core aspects of translational writings to bear in mind:

- (1) understandable by a diverse audience (i.e. **accessibility**);
- (2) common language across different articles (i.e. **consistency**); and
- (3) compatible cross-referencing (i.e. **cohesion**) across the Collection and our [D3G](#) & [CTC](#) websites

Specific guidelines follow, and general background information (as supplied to 2020 Workshop participants) is summarised on the D3G website [here](#).

**Note:** these guidelines aren't meant to influence **WHAT** you say, rather just **HOW** you say it. :-)

Feedback welcomed ([email](#))

THE ASK	THE REASON	HOW TO DO IT
1. Make your writing clear to non-experts	Accessibility (as above). Greater translational impact will be achieved if journalists, politicians and savvy public can at least get the gist of your wonderful insights.	<ul style="list-style-type: none"> <li>• Use simple language for the wrapper sections (abstract, intro, discussion), restrict techno-speak to research core (methods, results, appendices)</li> <li>• Define specialist words and/or use simpler substitutes</li> </ul>
2. Use D3G's standardised translational terminology	Consistency (as above). Readers are better served if all articles are written similarly, like chapters in a book.	<ul style="list-style-type: none"> <li>• See articles already published in this Collection (<a href="#">here</a>)</li> </ul>
3. Cross-reference other D3G-related articles and webpages where possible ("in house" citing)	Cohesion (as above). It'll be valuable to have this Collection as an extension of the interlinked, translational information already developed by D3G	<ul style="list-style-type: none"> <li>• Refer to D3G &amp; Chalky Teeth Campaign webpages where you can (e.g. <a href="#">prevalence data</a>, <a href="#">MH health risks</a>/<a href="#">link to decay</a>)</li> <li>• This can be done as References and/or Footnotes</li> </ul>

<sup>1</sup> 35 panellists – comprising science translators, career scientists, paediatric dentists, orthodontists, general dentists, public health dentists, hygienists, therapists, paediatricians, industry directors, educationists & a major research funder – interacted over 6 sessions addressing geographic aspects, population health, clinical, research, educational, and the D3G network.

<sup>2</sup> e.g. from chalky teeth, chalky molars and chalky enamel spots through to molar hypomineralisation, demarcated opacities and hypomineralised enamel

		<ul style="list-style-type: none"> <li>D3G-related papers are <a href="#">here</a></li> <li>See the <a href="#">simple summary</a></li> <li>Cite the <a href="#">original reference</a></li> </ul>
4. When introducing the topic, refer to the "3-level MH problem" (i.e. MH itself, education deficit, research gaps), not just MH per se	All 3 levels need to be tackled if the field is to advance translationally	<ul style="list-style-type: none"> <li>See D3G-related papers <a href="#">here</a></li> </ul>
5. Standardise to "Molar Hypomineralisation" (MH) across all molar types	Use of separate clinical terms (MIH, HSPM etc) weakens scientific consideration (see <a href="#">here</a> )	<ul style="list-style-type: none"> <li>See D3G-related papers <a href="#">here</a></li> </ul>
6. Routinely denominate molars as 2-year, 6-year, 12-year (having defined as 2nd primary, 1st & 2nd permanent at first appearance)	This classical naming convention (common at beginning of 20th century) helps readers (1) link developmental stage to age, and (2) understand when screening should be done	<ul style="list-style-type: none"> <li>See D3G-related papers <a href="#">here</a></li> </ul>
7. Don't confuse descriptors at case and tooth level	MH is a condition that a child (case) has, as reflected by a mix of hypomin & normal teeth. Individual teeth may be hypomineralised (HM), but they can't have MH for the reason above.	<ul style="list-style-type: none"> <li>Write about MH cases</li> <li>Write about HM teeth</li> <li>It is nonsensical to say MH teeth or MH enamel because some teeth in MH cases are normal, &amp; some enamel in HM teeth is normal</li> </ul>
8. Use <a href="#">Palmer</a> & <a href="#">FDI/WHO</a> notations to specify individual teeth in adult & baby dentitions respectively	It is efficient to refer to hypomin 2-year/6-year/12-year molars as HM-Es/HM-6s/HM-7s respectively	<ul style="list-style-type: none"> <li>See D3G-related papers <a href="#">here</a></li> </ul>
9. Routinely denominate first & second dentitions as baby & adult (having defined as primary/deciduous & permanent at first appearance)	Baby/adult has translational value because (1) it is more familiar to the public and (2) it links "sick babies" to the onset of MH. Where possible reinforce the importance of 6-year molars as the first adult tooth (cf. lifelong burdens)	<ul style="list-style-type: none"> <li>See D3G-related papers <a href="#">here</a></li> <li>See Figure below</li> </ul>



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CHALKY  
TEETH**  
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**'CHALKY TEETH LINGO'**

- "Chalky molar"
- "Chalky spot" (weak)
- "Chalky enamel" (crumbly)
- "Tooth bricks"
- "Missing bricks"
- "Plaque bugs"

magnified

[chalkyteeth.org/speak-chalky-teeth](http://chalkyteeth.org/speak-chalky-teeth)

- **"Molar Hypomin" (MH)** – person/case
- **"Hypomin" (HM)** – tooth/defect

Primary/baby	↓	2yr	6yr 12yr
EDCBA	ABCDE	87654321	12345678
EDCBA	ABCDE	87654321	12345678

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