

Institute for Molecular Bioscience

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## Submission to the Legal Affairs and Safety Committee

### Re: Committee Inquiry into the Births, Deaths and Marriages Registration Bill 2022

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I am a biological research scientist with more than 40 years experience studying biological sex (see Appendix 1).

The purpose of this submission is to provide the Committee with accurate, evidence-based information relating to the science of sex, and recommendations regarding how this information may be useful in considering the Bill.

#### 1. The science of sex and gender

- 1.1 Scientifically, a key issue in evaluating the Bill is the need to appreciate, preserve and articulate the distinction between sex and gender. Several submissions have raised this as an issue. *This distinction is a crucial and indispensable foundation for developing accurate, workable legislative documentation dealing with these concepts.*
- 1.2 It is factually irrefutable that people have a number of different components to their sexual identity, including their chromosomal sex, biological sex, gender and sexual orientation. These components are distinct even if often connected. Biological sex and gender are most relevant to this submission.
- 1.3 Biological sex is the term that describes whether a person has the anatomical (that is, physical) features of a male or female, or a combination of both.
- 1.4 Gender relates to a person's psychosocial sense of themselves as a man, woman, a combination of these, or neither of these.
- 1.5 Sex and gender are not binary concepts – each has intermediate, ambiguous or undefinable states.
- 1.6 A person's biological sex may or may not align with their gender self-identification.

**Recommendation 1:** Relevant legislation should include a clear definition of what is meant by the terms 'sex' and 'gender', and should acknowledge the existence of these two distinct dimensions in each person. In this regard the Bill is unworkable in its present form and needs to be revised.

- 1.7 There is continued confusion about which status descriptors (including nouns, adjectives and pronouns) relate to sex, and which to gender. This is true of even the most basic descriptors such as man, woman, male, female, boy and girl.
- 1.8 Useful descriptors of sex include male, female, typical male, typical female, anatomically male/female, intersex, person of indeterminate sex, and so on. Such descriptors are in clinical use, and are relatively broadly understood. The application and use of such terms hinges principally on anatomical criteria, usually involving the external and/or internal reproductive organs when applied to newborns or children, and may later come to also involve such criteria as hormonal status, body shape, bone density, voice, ratio of length of pointer finger to ring finger (2D/4D ratio), and facial and/or body hair. These characteristics together form what is known as a 'sex phenotype' – the physical manifestation of the person's sex.
- 1.9 Useful descriptors of gender include man, woman, boy, girl, transgender (trans), genderqueer, genderfluid, person of indeterminate gender, agender, and so on. The application and use of such terms is very situation-dependent. Sometimes they are based on the person's observed behaviour patterns or role, sometimes on their physical appearance including such factors as grooming, clothing and movement, sometimes by extrapolation from the visible elements of the sex phenotype, and sometimes by the person's self-declared status or at their request.
- 1.10 Complexities arise when a person of a particular biological sex identifies with a gender that does not align with that sex. Terms such as trans man and trans woman are often applied in these situations.

**Recommendation 2:** Descriptors of sex and gender need to be understood, defined, and correctly and consistently applied in relevant legislation. In this regard the Bill is unworkable in its present form and needs to be revised.

- 1.11 Because biological sex is not the same as gender, the two terms are not interchangeable.
- 1.12 In many aspects of our society, segregation on the basis of sex or gender is the norm and is considered desirable or operationally beneficial. Prisons, single sex schools, women's gyms, women's safe spaces, changing rooms, and many toilets are well known examples. Some professional opportunities and awards are open to one sex/gender. Many situations call for 'gender-balance' or quotas – committees, professional groups, workplaces, juries, etc.
- 1.13 In the past, the assumption has been that sex and gender are concordant, but this assumption is becoming increasingly untenable.
- 1.14 Contemporary policy and law calls for a careful consideration of which such situations revolve around sex, or sex characteristics, and which situations revolve around gender identification (Is a gynecology clinic meant for women or females? Should a jury be composed of a mix of genders or a mix of sexes, or both or neither?) These are fraught questions that are typically left unresolved.

**Recommendation 3:** Relevant legislation should refer to *biological sex* when considering matters of policy where the person's anatomy is deemed to be the key deciding feature, and to *gender* where psychosocial concepts such as role and behaviour are paramount. It follows that the legislation should be underpinned by detailed consideration of which criteria (anatomical features vs sense of self) are relevant to which legal provisions, and the rationale for those decisions needs to be clear.

## 2. Recording a person's sex and gender

- 2.1 Biological sex is evident at birth, whereas gender is not.
- 2.2 A person's biological sex, being anatomically-based, can only be changed by physical, chemical or hormonal interventions that alter their physical features in such a way that the original sex descriptor is no longer tenable.
- 2.3 A person's gender, involving self-identification, may (or may not) change, evolve or revert as the person progresses in life. It is conceptually a more fluid characteristic than biological sex.
- 2.4 A birth certificate, by definition, is a record of basic facts relating to a person at the time of their birth, including their name, place of birth, date of birth, sex and parentage.
- 2.5 In principle, these facts are immutable as they relate to a specific window of time.
- 2.6 As such, a birth certificate is not fit for purpose as a document that describes a person's characteristics at some other time in their life.
- 2.7 Birth certificates as factual historical records continue to fulfil an important role in diverse scientific and/or research spheres including genealogy, anthropology, genetics, demography, statistics and medicine, and should not become effectively user-editable, unless they can be demonstrated to contain incorrect information relating to a person's birth.

**Recommendation 4:** Legislation should abandon the concept of a birth certificate as an updatable record of a person's sex or gender self-identity status.

- 2.8 It is not possible to record a person's gender on their birth certificate because their gender is not apparent at the time of birth.
- 2.9 From a scientific perspective, it is not possible to suggest that a person's sex can be described on their birth certificate using terminology that relates to gender but not to sex. Following that logic, terms such as trans woman, agender and genderqueer have no place on a birth certificate.

**Recommendation 5:** Legislation should promote the use of sex descriptors and preclude the use of gender descriptors on a birth certificate.

- 2.10 A different kind of instrument to the birth certificate is required to document either a person's current status or to track the changes that have occurred over their lifetime.

**Recommendation 6:** Relevant legislation should acknowledge the need for two distinct types of document – a birth certificate and a second type of document that attests to a person's current status – and that these would have different utilities as verification or validation instruments in different situations.

### 3. Closing remarks

- 3.1 Queensland has an opportunity to demonstrate clarity and leadership in defining sex and gender, rather than merely adding to the current high level of misunderstanding and confusion. It is arguably time to draw a legal distinction between these concepts, and determine which is relevant to which situation. Such a major overhaul calls for detailed and lengthy research and consultation.
- 3.2 There are many angles in addition to the science of sex and gender that are relevant to consideration of this Bill. In principle, legislation that removes barriers, strengthens the legal recognition of trans and gender diverse people, and acknowledges contemporary family and parenting structures deserves support. But given the complexities described in the many submissions, the timeframe for this inquiry is unrealistically short.
- 3.3 As with any changes to legislation, potential disadvantages and unintended adverse scenarios that may result from the Bill deserve further consideration – what may be lost as well as what may be gained.

**Recommendation 7:** The Bill in its current form is inadequate and should be rejected in favour of a comprehensive overhaul that fully considers the issues articulated in this and other submissions.

**Peter Koopman**

*Brisbane, 20 January 2023*

## Appendix 1: Personal background

The following information is provided to inform the Committee regarding my level expertise in the science of sex, my opportunities to interact with clinicians and public affected by intersex and disorders of sex development, and a sound understanding of, and support for, the principles of diversity, inclusion and fairness.

I obtained a PhD in Paediatrics from the University of Melbourne in 1986. I then worked at the Medical Research Council in London (1987-1992), where I jointly discovered the Y-chromosomal male sex-determining gene SRY. Between 1992 and 2020, I headed a team of researchers whose main focus was the development of sex in mammals. I was elected a Fellow of the Australian Academy of Science in 2008, and received a DSc from the University of Queensland in 2017. I have published more than 300 research papers, and attracted some \$56 million in competitive research funding.

Since 2003 I have been the author and ongoing curator of the website *Sex development - Genetics, Biology, and Variations* ([www.dsdgenetics.org](http://www.dsdgenetics.org)), a source of factual information relating to biological sex and intersex, for parents, patients, and the community. This site averages 4500 visits per month from some 90 countries.

From 2012 to 2020 I served on the Disorders of Sex Development Subcommittee of the Australasian Pediatric Endocrinology Group (now the Australia and New Zealand Society for Paediatric Endocrinology and Diabetes). This committee is composed mainly of clinicians, and deals with policy and practice in medically managing children with intersex conditions.

I have served as Chair of the Equity and Diversity Reference Group of the Australian Academy of Science, as a member of the Women in Health Science Working Committee of NHMRC Australia, and in the development of the Decadal Plan for Women in STEM commissioned by the Australian Government.

Further information can be found at [https://en.wikipedia.org/wiki/Peter\\_Koopman](https://en.wikipedia.org/wiki/Peter_Koopman)

I declare no conflict of interest such as a vested interest in any specific outcome of the present review, or links with any relevant advocacy group, that might compromise my ability to provide information to the Committee that is free from bias.

The views and recommendations expressed in this submission are my own and do not necessarily reflect those of the University of Queensland.