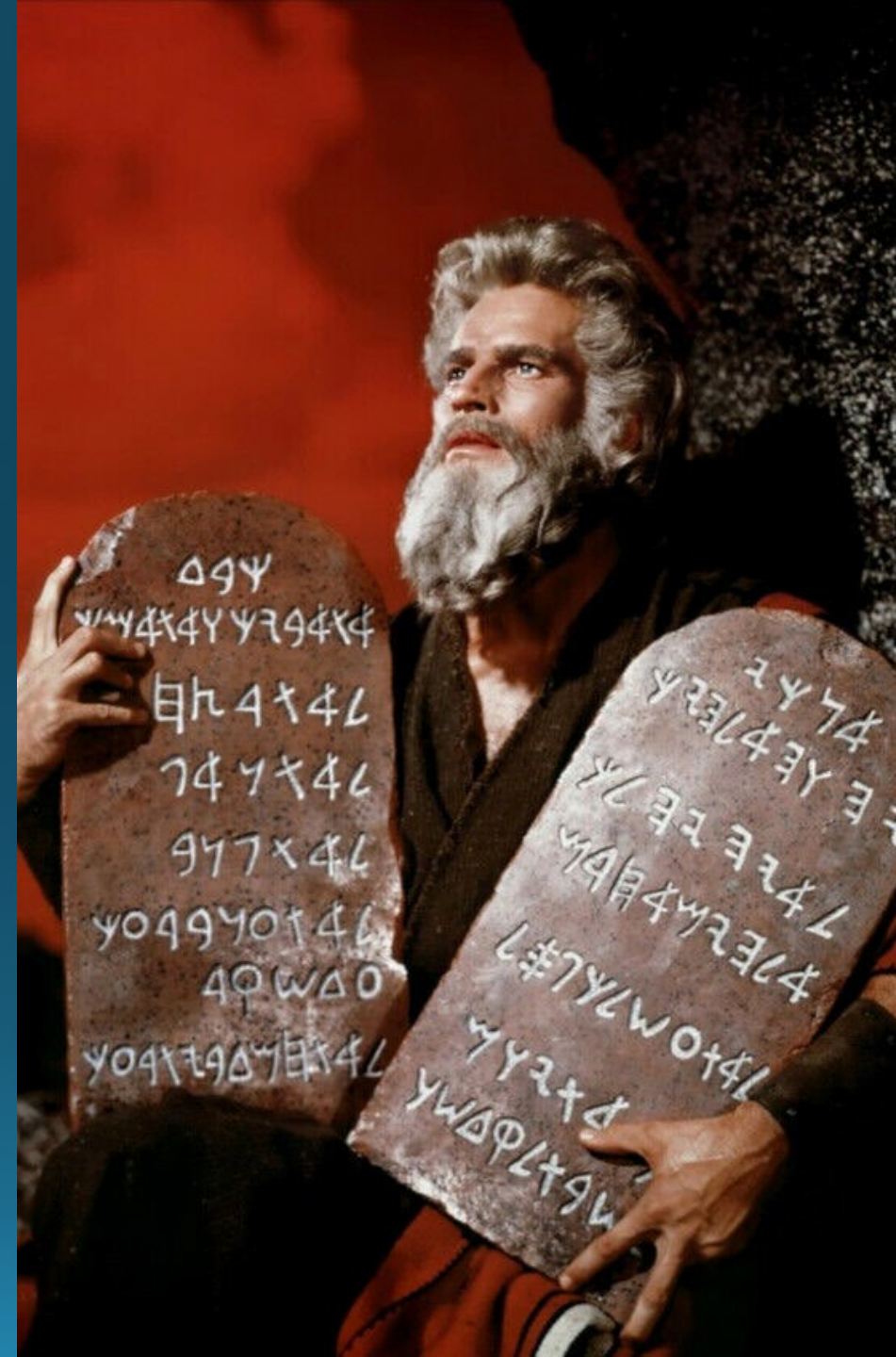


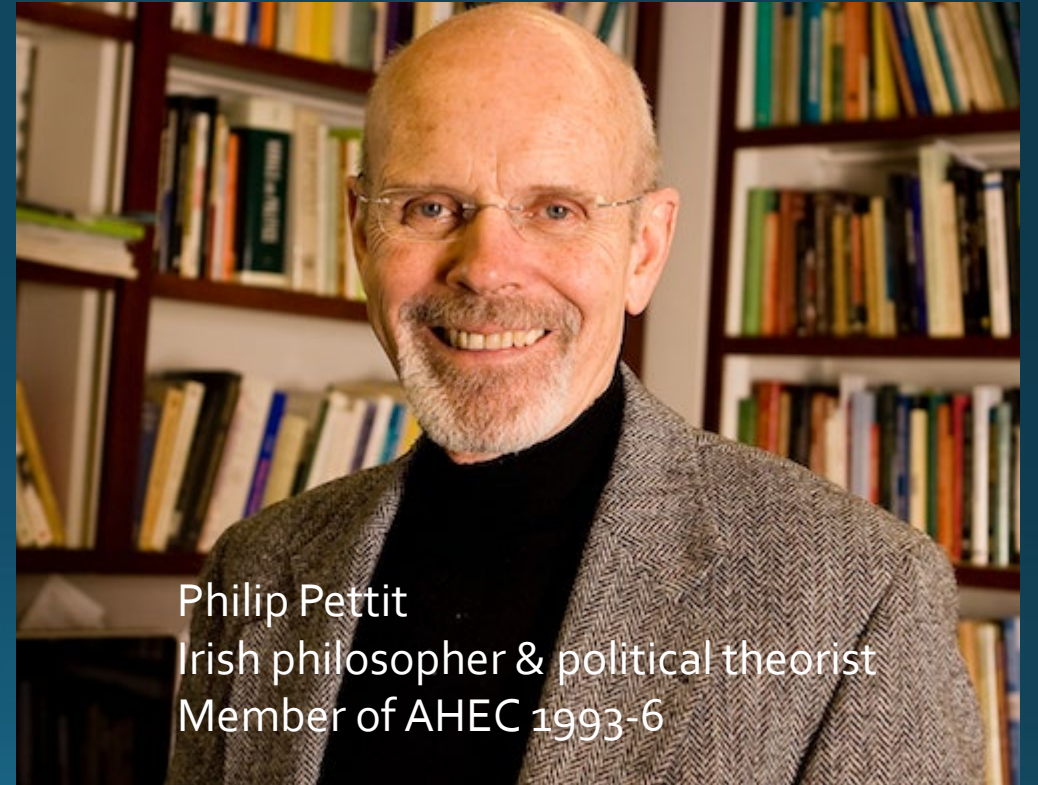
Rob Loblay  
Chairman,  
Ethics Review Committee  
SLHD (RPAH Zone)

# The role & remit of the National Statement: *Guidance vs Rulebook*



# *The "scandal machine"*

1. Egregious misconduct
2. Exposure
3. Public outrage
4. Regulatory reaction

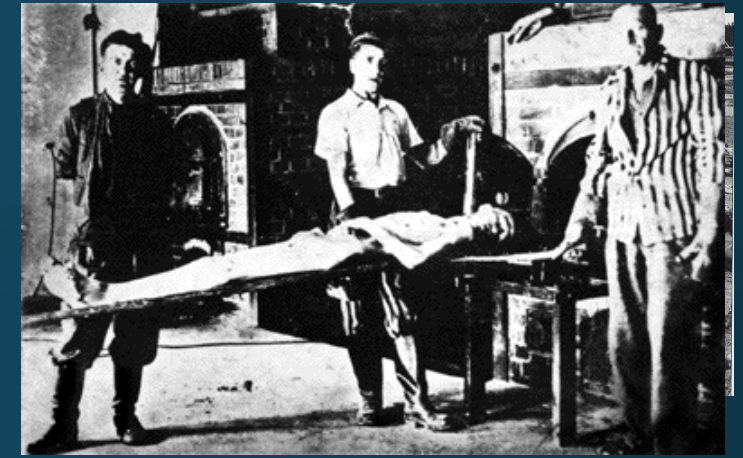


Philip Pettit  
Irish philosopher & political theorist  
Member of AHEC 1993-6

Pettit P. Instituting a research ethic: Chilling and cautionary tales.  
*Bioethics* 1992;6:89-112

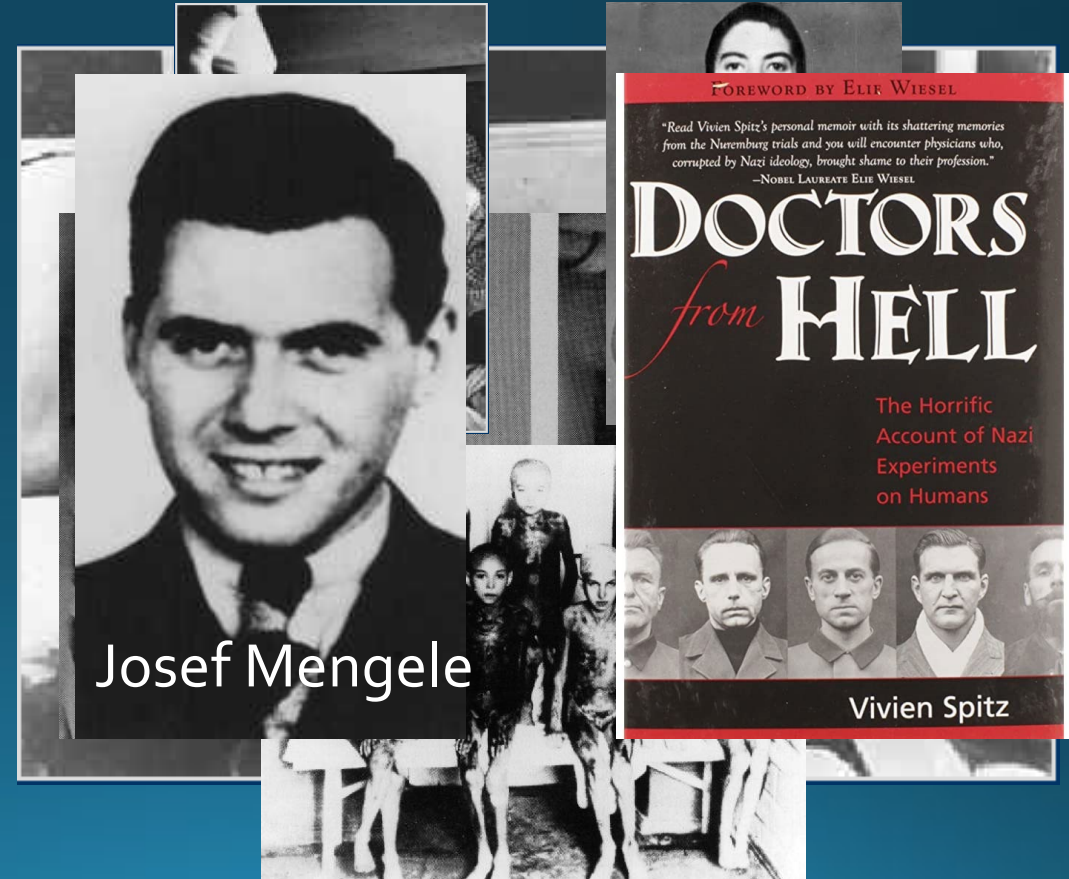


# Holocaust: *Biggest scandal of 20<sup>th</sup> Century*



## Nazi experiments:

- Thanatology
- Freezing
- Explosive decompression
- Induced infectious disease
- Gruesome skin experiments



# *Nuremberg trials* (1946)



# Nuremberg code (1948)

1. Voluntary **informed consent**; legal capacity
2. **Useful aims**; no other means; for the benefit of society.
3. **Well justified**; based on animal data
4. **Avoid** unnecessary physical or mental suffering/injury
5. No **intentional** death or disability
6. Benefits > risks
7. Protection from harm
8. Qualified researchers, skill & care
9. Freedom to withdraw if continuation 'seems impossible'
10. Terminate experiment if in danger of injury, disability, death.

# *Reactions to the Nuremberg Code*

Early 1950's

- UK – Medical Research Council:

*"...only a small branch of experienced investigators ... are likely to be competent to pass an opinion on the advisability of undertaking any particular investigation."*

- US Clinical Professors ('42 Club):

*"...the only safeguard is the conscience of the experimenter..."*

# *Reactions to the Nuremberg Code*

Late 1950's

- NIH introduced scientific peer review for funding, but ignored the Nuremberg Code:



NIH Clinical Center (1950's)

“...the physician-scientist praised the Nuremberg Code, but rejected it as inappropriate to ordinary science...

*... necessary for barbarians,  
but [not for] fine upstanding people.”*

# *Henry Beecher* (Harvard; 1959)

- Believed the profession unlikely to introduce necessary ethical checks & balances
- Public claims of unethical research met with *hostility* by colleagues
- Selected 22 published studies as examples
- *Rejected* by *JAMA*, accepted by *NEJM* in 1966 ('examples' given, but no names or references).



Henry K. Beecher

*Experimentation in Man. JAMA 1959; 169:118/470*  
*Ethics and clinical research. NEJM 1966; 274:1354-1360*



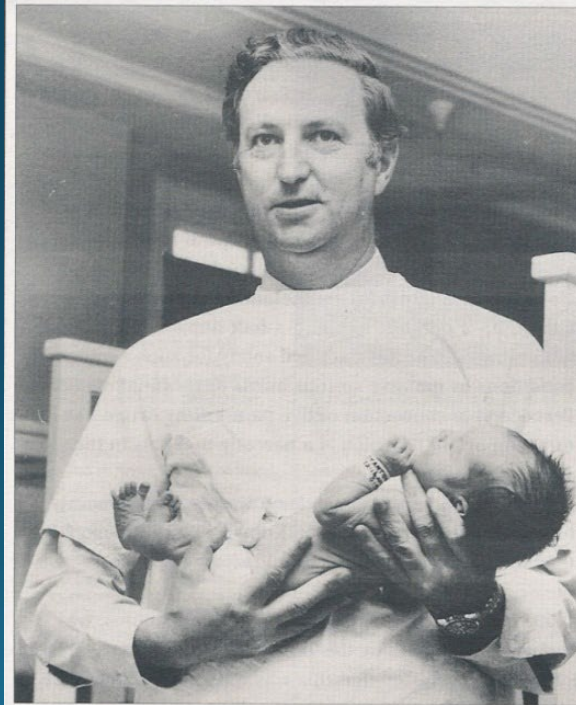
# The thalidomide disaster



Crown St Women's Hospital, Sydney

## THALIDOMIDE

The worst drug disaster of all. Thalidomide was a worldwide tragedy affecting 8,000 children in 46 countries – more than 400 of them in Great Britain. It created a legal battle that ran and ran, as drug companies all over the world tried to escape the enormous expense of the damage claims brought against them.



Dr William McBride, Australian white-blower who saved Thalidomide.

It was a story of tears as parents broke down under the stress and children wondered if life was ever going to be worthwhile. It was also a story of incredible human triumph as fearfully deformed children grew up to overcome their handicaps to lead fulfilling lives in workplace and home.

### First Warning

In 1959, the German chemical company Chemie Grünenthal received a letter from a Dr Voss, warning that he had found patients who seemed to be suffering side effects, including peripheral neuritis (nerve damage) from the use of one of their patent sedatives. It is quite normal for doctors to report suspected deleterious side effects from new drugs, but the majority of such reports turn out to be false alarms. Grünenthal were unperturbed by the doctor's communication and continued to market the drug under a number of brand names.

This, however, was not the last complaint they were to receive over the next two years. Other doctors similarly reported symptoms occurring to patients who took the drug thalidomide. The symptoms included dizziness, constipation, cramps and numbness in the fingers. Grünenthal's response was cold and

Dr William McBride

# Thalidomide cases (→ 1962)



Germany	2,600
Japan	1,000
UK	400
Australia	59
New Zealand	8



# *Thalidomide - regulatory response*


## Clinical trials & drug approval

- FDA strengthened  
Food & Drug Administration  
USA
- CSM created  
Committee on Safety of Medicines  
UK
- TGA created  
Therapeutic Goods Administration  
Australia



# *Declaration of Helsinki* (1964)

- Basic Principles
- Clinical Research
- Biomedical research (non-clinical)

L'ASSOCIATION MEDICALE MONDIALE, INC  ASOCIACION MEDICA MUNDIAL, INC

**THE WORLD MEDICAL ASSOCIATION, INC.**  
B. P. 63 - 01212 FERNEY-VOLTAIRE Cedex, France  
28, avenue des Alpes - 01210 FERNEY-VOLTAIRE, France

Telephone : 50 40 75 75  
Fax : 50 40 59 37


September 1989

Cable Address:  
WOMEDAS, Ferney-Voltaire

17.C  
Original: English

**WORLD MEDICAL ASSOCIATION DECLARATION OF HELSINKI**  
**Recommendations guiding physicians  
in biomedical research involving human subjects**

Adopted by the 18th World Medical Assembly  
Helsinki, Finland, June 1964



Revised: 1975, 1983, 1989, 1996, 2000, 2008, 2013...

# Scandals in medical research

The 'Tuskegee' study: Alabama, USA

- Observational study of the effects of **untreated syphilis** in black men – commenced **1932**
- US Public Health Service – **40-year project**
- Continued until 1972:
  - widespread collusion in PHS
  - participants **denied Rx** (penicillin available ~1951)
  - ↑ deaths, blindness, insanity
- Halted after **public exposure** (*Washington Star*)



# *Tuskegee study: timeline*

- 1966:** Dr Peter Buxton – dissenting views ignored – left PHS
- 1969:** PHS Expert Panel: recommended continuation
- 1972:** Exposed by AP reporter Jean Heller
- 1973:** Study stopped; treatment administered



Ted Kennedy & Jean Heller (1973)

**28 deaths, 100 cases of disability, 19 cases of congenital syphilis**

*Meanwhile ...*



*... in Willowbrook, NY*

*Willowbrook State School*

NY Department of Mental Hygiene

# "School for Scandal"

NY Department of Mental Hygiene (1955-1970)

Hepatitis  
vaccine  
testing

"Challenge"  
exposure of  
children to  
hepatitis

THE **HIDEOUS**  
**TRUTHS**  
OF TESTING  
**VACCINES**  
ON **HUMANS**

**Forbes**

Dr Saul  
Krugman  
(14-year study  
of hepatitis)

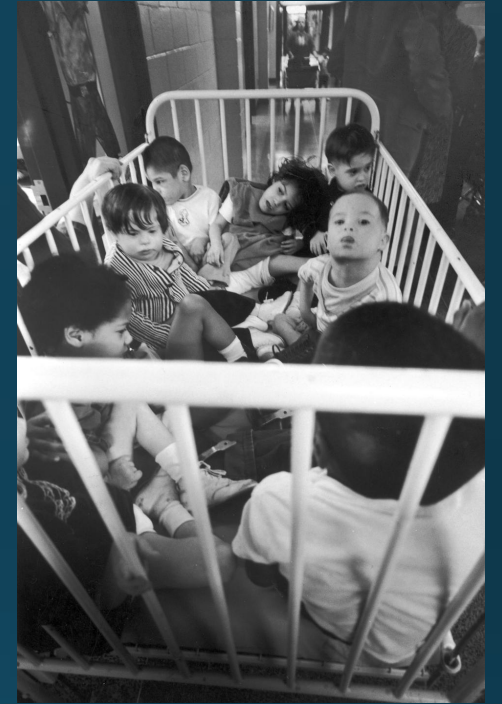
2,500 serum  
specimens  
from >700  
patients



# *Willowbrook State School*

NY Department of Mental Hygiene (1955-1970)

- Study of **natural history of hepatitis** & efficacy of  $\gamma$ -globulin in institutionalised children
- Children **deliberately infected** with stool extracts
- Parents unable to obtain care for their children **unless they agreed to study conditions**



# *1972 sensational media exposé*



Geraldo Rivera  
ABC News



<https://www.youtube.com/watch?v=qzNFRn5TTtc>

# US National Research Act



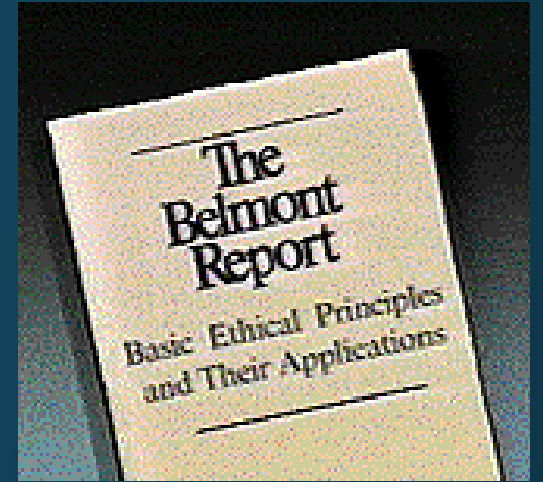
1974



- Established the modern ***Institutional Review Board*** (IRB) system for regulating human subject research
- Established the ***National Commission for Protection of Human Subjects of Biomedical and Behavioral Research***

National Commission for the Protection of  
Human Subjects of Biomedical & Behavioral Research  
DHEW

*The Belmont Report* (1979)



*Ethical principles:*

- Respect for persons
- Beneficence
- Justice

*Practical application:*

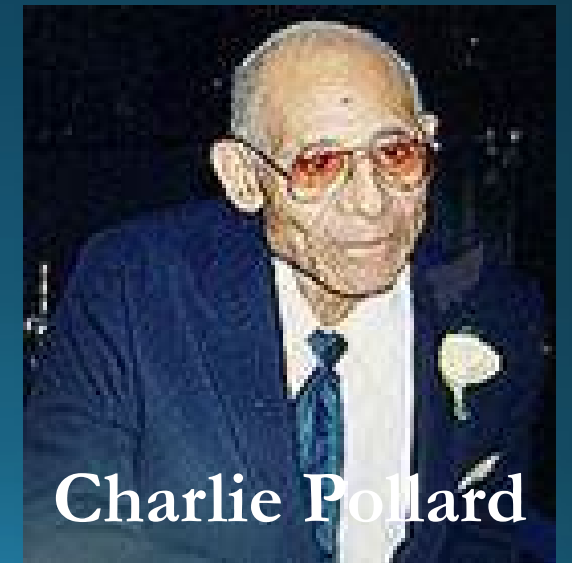
- Informed consent
- Risk-benefit assessment
- Selection of subjects

# Tuskegee study: 25 years later



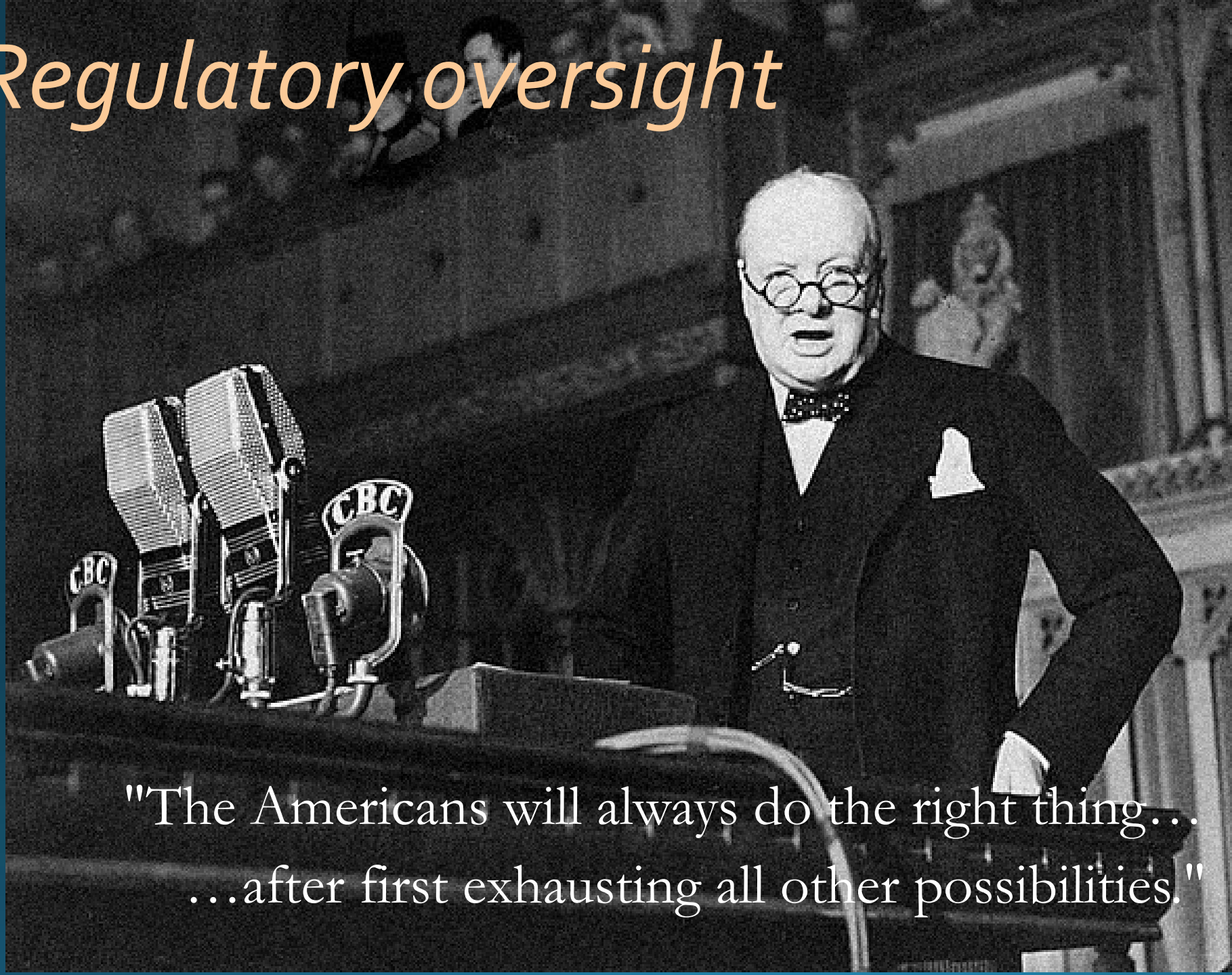
"What was done cannot be undone. But we can end the silence. We can stop turning our heads away. We can look at you in the eye and finally say, on behalf of the American people: what the United States government did was shameful.

"And I am sorry."



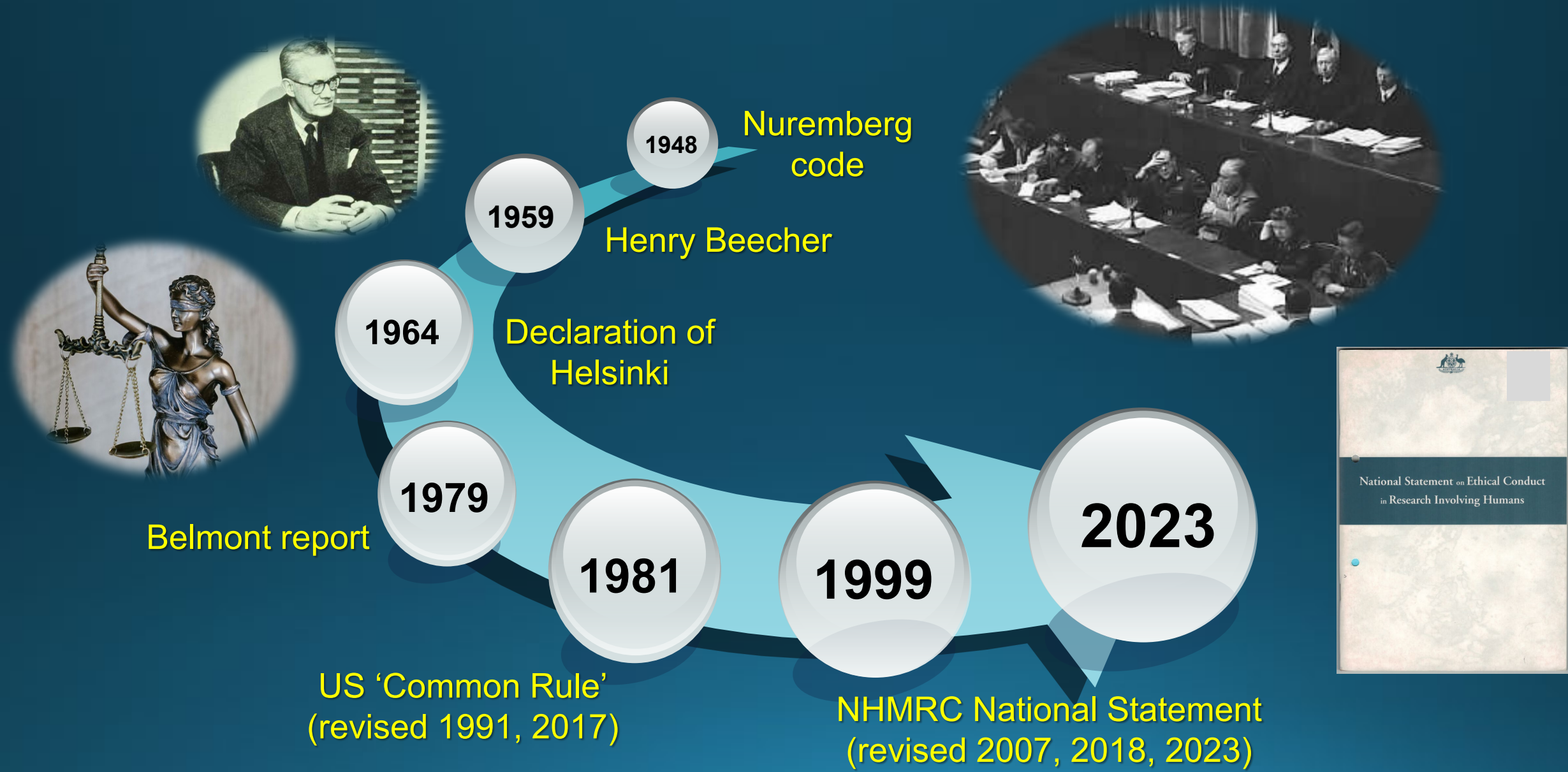
Charlie Pollard

# *US Regulatory oversight*



"The Americans will always do the right thing...  
...after first exhausting all other possibilities."

# Post-war milestones



# *Research ethics in Australia*

National Health & Medical Research Council (NHMRC)

- 1964: ***Declaration of Helsinki ratified***
- 1966: NHMRC ***Statement on Human Experimentation***
- 1985: Statement & ***Supplementary Notes*** (mandatory for funding)
- 1992: ***NHMRC Act*** – creation of Australian Health Ethics Committee



# Australian Health Ethics Committee (AHEC)

## NHMRC Act 1992

- Issuing of NHMRC guidelines for ethical conduct of research
- 2-stage public consultation process
- Registration & monitoring of Institutional Ethics Committees
- Advising researchers, institutions, NHMRC, Government on ethical issues
- Existing *NHMRC Statement & Supplementary Notes* adopted under the act...

*...EXCEPT SN4: Assisted Reproductive Technology*



Brian Harradine



*Ethical  
guidelines  
on assisted  
reproductive  
technology*

1996

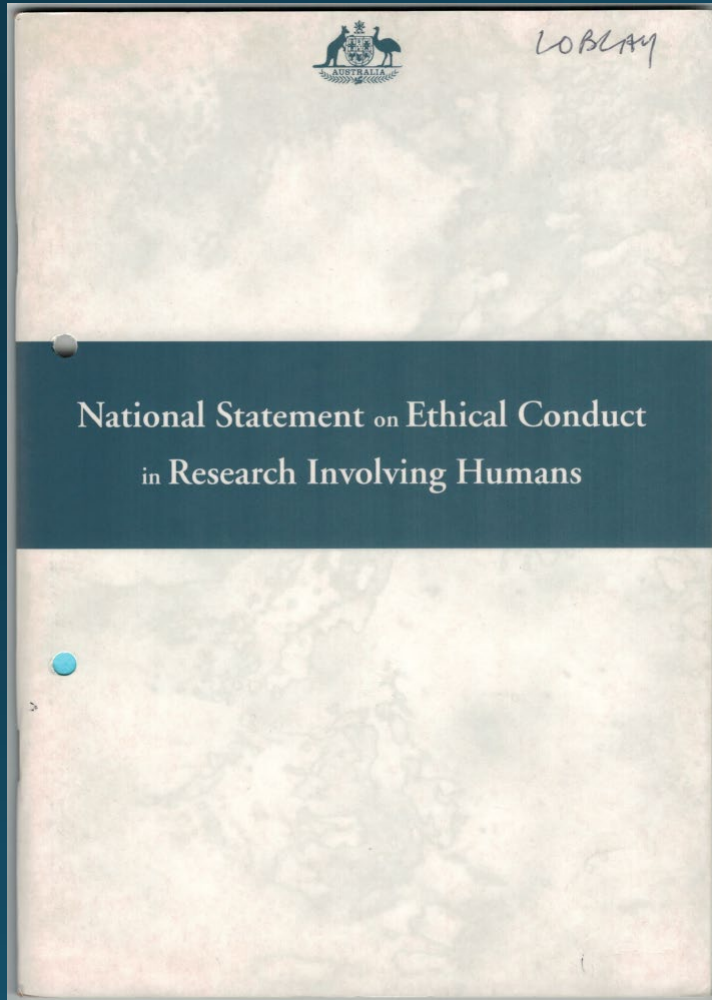
# *Review of the role & functioning of Institutional Ethics Committees (1994)*

- Concerns about clinical trial of RU486 (the “abortion pill”)
- The Allars Report – Inquiry into use of pituitary extract and CJD in Australia
- IEC Review published in March 1996 with 23 recommendations



Hon Dr Carmen Lawrence  
Minister for Human Services & Health

# National Statement on Ethical Conduct in Research Involving Humans (1999)



## NATIONAL STATEMENT ON ETHICAL CONDUCT IN RESEARCH INVOLVING HUMANS

Issued by the National Health and Medical Research Council (NHMRC) in accordance with the *NHMRC Act, 1992 (Cth)*.

### Endorsed by the:

- Australian Vice-Chancellors' Committee
- Australian Research Council
- Australian Academy of the Humanities
- Australian Academy of Science
- Academy of the Social Sciences in Australia

### Supported by the:

- Academy of Technological Sciences and Engineering



Don Chalmers  
Faculty of Law, UTas



## Human Research Ethics Handbook

Commentary on the *National Statement on Ethical Conduct in Research Involving Humans*

[Click to Enter](#)

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# Change of focus and scope...

## FROM:

- An **aspirational code of ethics** – a statement of ideals that researchers ought to aspire to in the conduct of their research.
- List of **13 principles** Supported by 20 pages of Supplementary Notes
- Purposes:
  1. The **protection** of the welfare and the rights of participants in research
  2. To **facilitate** research that is or will be of benefit to the researcher's community or to humankind
  3. To provide a national **reference point** for ethical consideration relevant to all research involving humans.
- Focus on the **investigator** who: *"must be satisfied" ... "must at all times respect" ... "is responsible for" ... "must stop or modify" ...*

# Change of focus and scope ...

## TO:

- A *regulatory code* of policy and practice (66 pages) – including membership, competencies, training, compliance
- “This [document] offers *guidance* rather than *prescription* of ethically sound research design and practice.” (Cover letter from Don Chalmers to IEC chairs)
- Sets out:
  - 21 ethical *principles* to which all research that involves humans must conform
  - how different types of research should be *designed & conducted* in order to conform to these ethical principles
  - *procedures* for consideration and approval of research by an HREC
  - *Institutional responsibilities* – separation of ethics & governance



At last! An Ethics Committee that will listen to reason..!

Governance

# International recognition



## Ethical and Policy Issues in Research Involving Human Participants

Volume II

Commissioned Papers  
and Staff Analysis

Bethesda, Maryland  
August 2001

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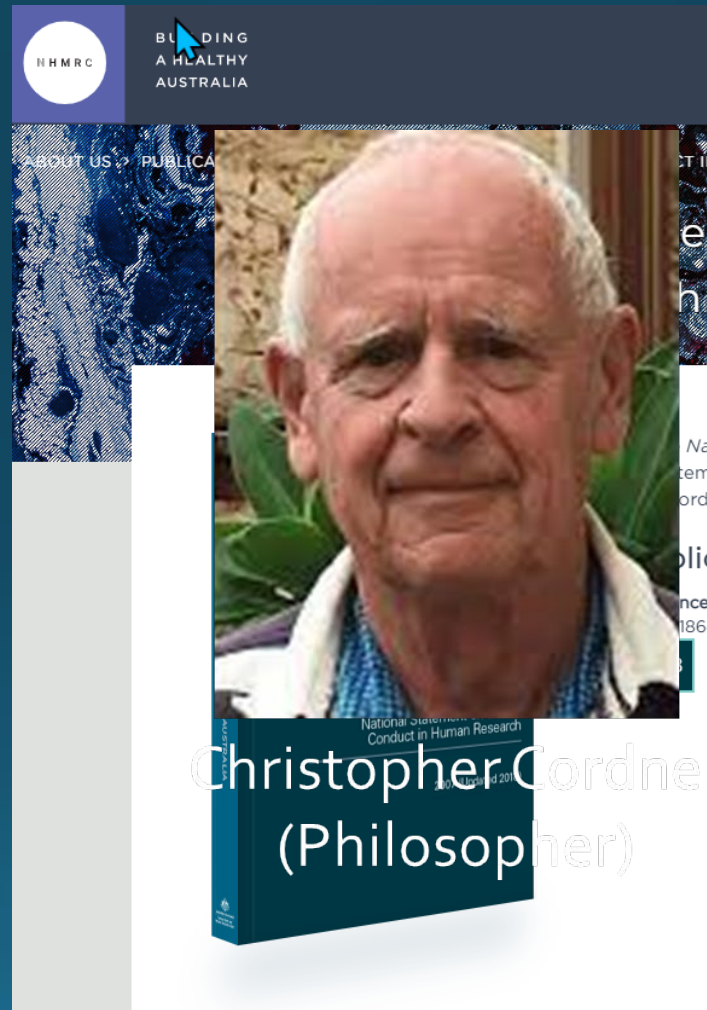
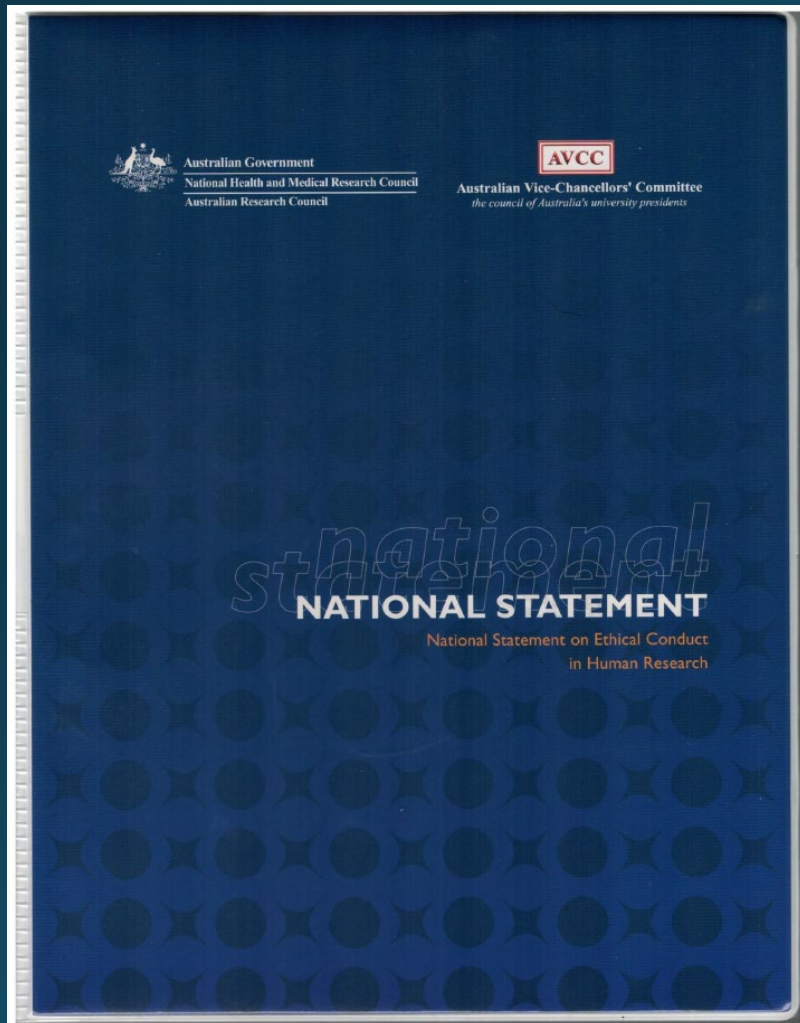
66-page detailed outline  
of the history of research  
ethics in Australia and  
development of the  
*National Statement*

*"Jeroboams of ink  
have been spilled  
over this issue..."*

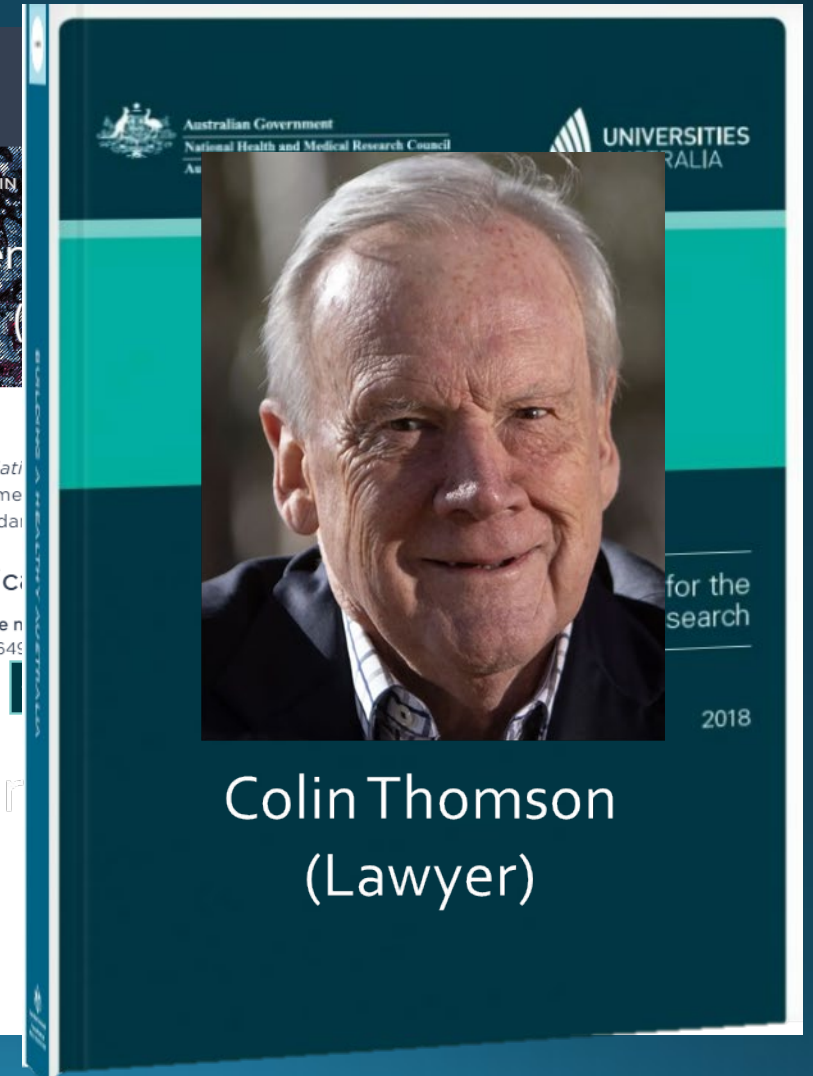




# National Statement on Ethical Conduct in Research Involving Humans (revised 2007, 2018)



Christopher Cordner  
(Philosopher)



Colin Thomson  
(Lawyer)



Australian Government  
National Health and Medical Research Council  
Australian Research Council



## National Statement on Ethical Conduct in Human Research 2023



NHMRC

BUILDING  
A HEALTHY  
AUSTRALIA

## Chapter 2.1 Risk and benefit

A risk is a potential for harm or discomfort (discussed below). It involves:

- the likelihood that a harm or discomfort will occur, and
- the severity or magnitude of the harm or discomfort, including their consequences.

While discussion of the risk of harm or discomfort in this chapter applies to risk to an individual research participant, it can also apply to groups or communities as well as to non-participants such as family members.<sup>2</sup> Risk can be associated with the conduct of research or the proposed outcomes of the research.<sup>3</sup>

Risk in research exists on a continuum with the risk profile of an individual research project falling

“Risk in research exists on a continuum...”

Figure 1: Risk profiles of research

Lower risk		Higher risk (Individual, group, community, societal or global)	
Minimal	Low	Greater than low	High
No risk of harm or discomfort; potential for minor burden or inconvenience*	No risk of harm; risk of discomfort (+/- foreseeable burden)	Risk of harm (+/- foreseeable burden)	Risk of significant harm (+/- foreseeable burden)

\*Burden and inconvenience are discussed below

...but this is still a *CATEGORICAL* classification system!

of misconduct is addressed in the Australian Code for the Responsible Conduct of Research and in institutional policy.

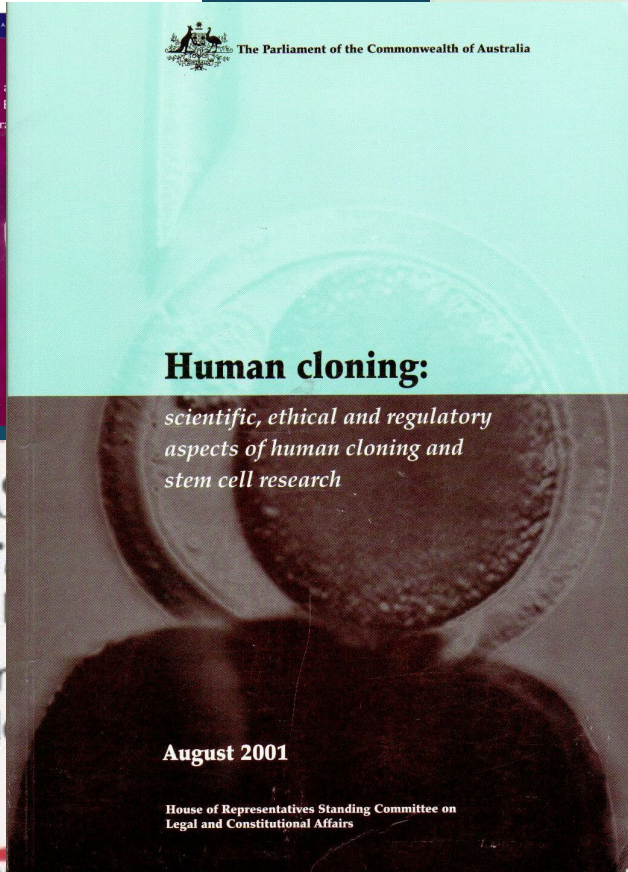
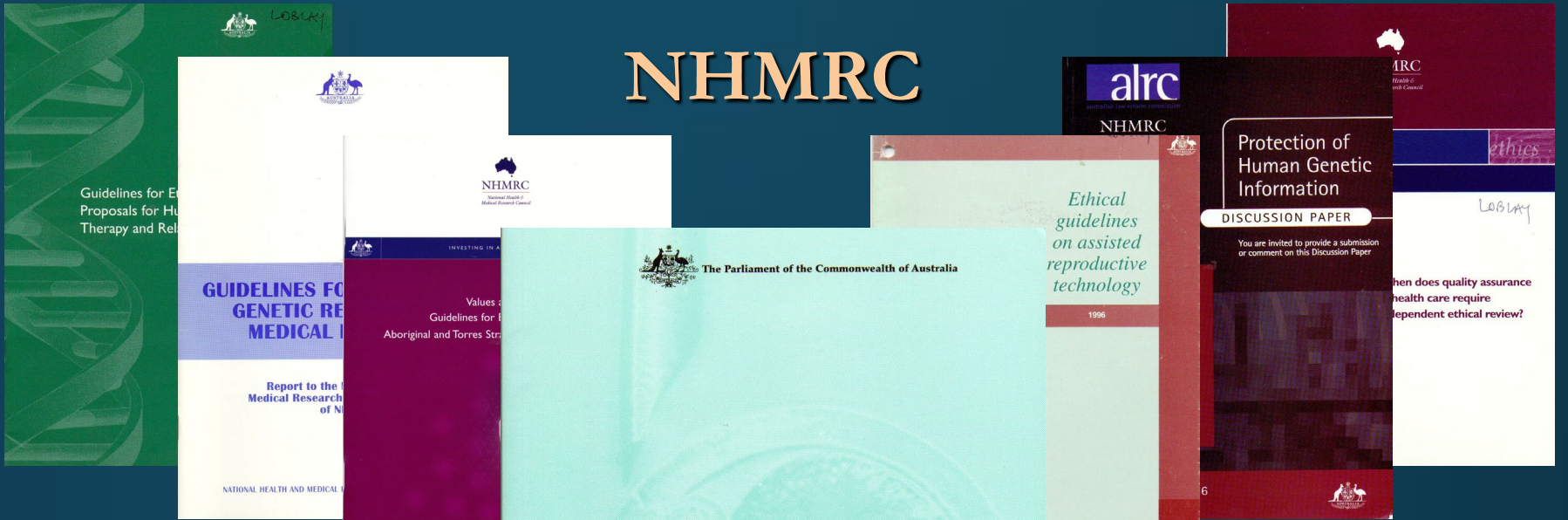
# *Role of the Chair ... not defined!*



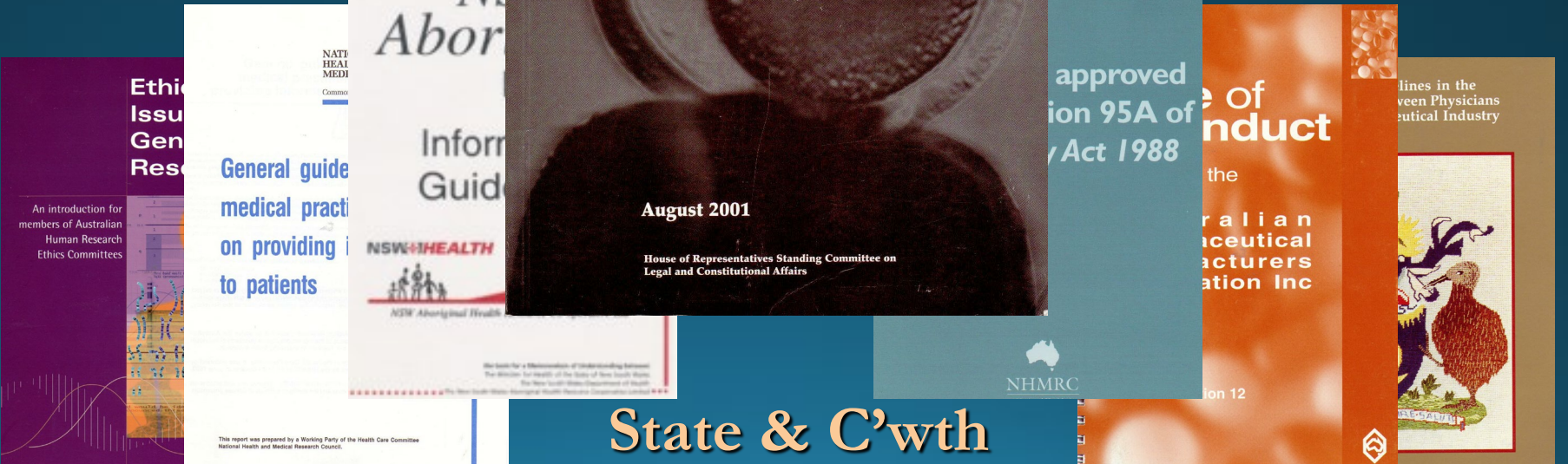
NS lives within a web of other 'guidelines'

Institutions

NHMRC



Professional bodies



State & C'wth Health Departments

The Royal Australasian College of Physicians

# *What's in a Name...?*

Guidelines

Codes

Policies

Statements

Declarations

Advice

*Words in NS  
whose meaning  
is subjective:*

Merit

Integrity

Respect

Harm

Discomfort

Burden

Research

Safety

Ethical

*The Code of Conduct  
uses RULE BOOK (legal)  
language:*

Breach

Allegation

*Prima facie*

Inquiry

Standard of proof

Due process

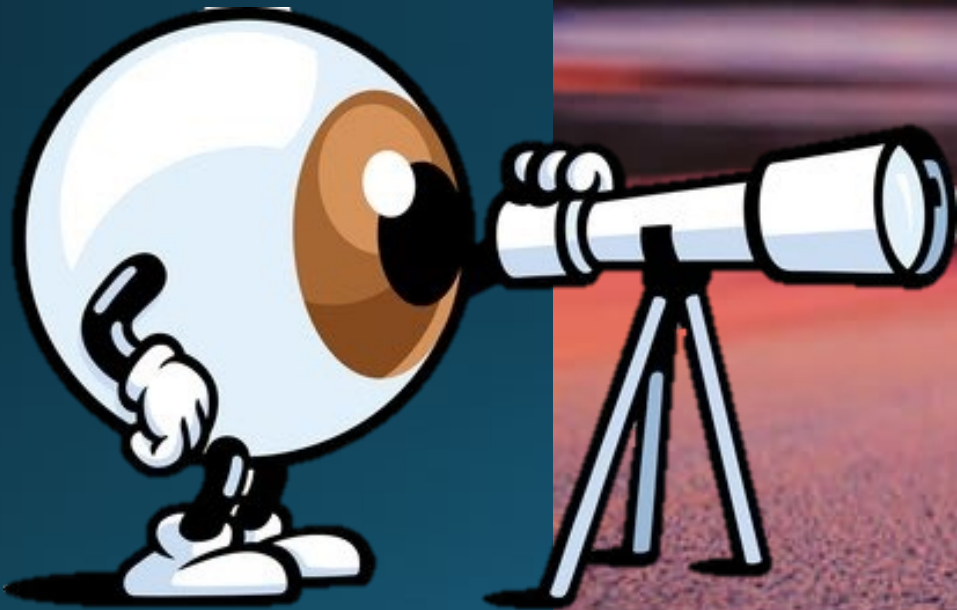
Sanctions

Remediation

Rights

**“Prediction is very difficult...  
...especially about the future.”**

*The future?*

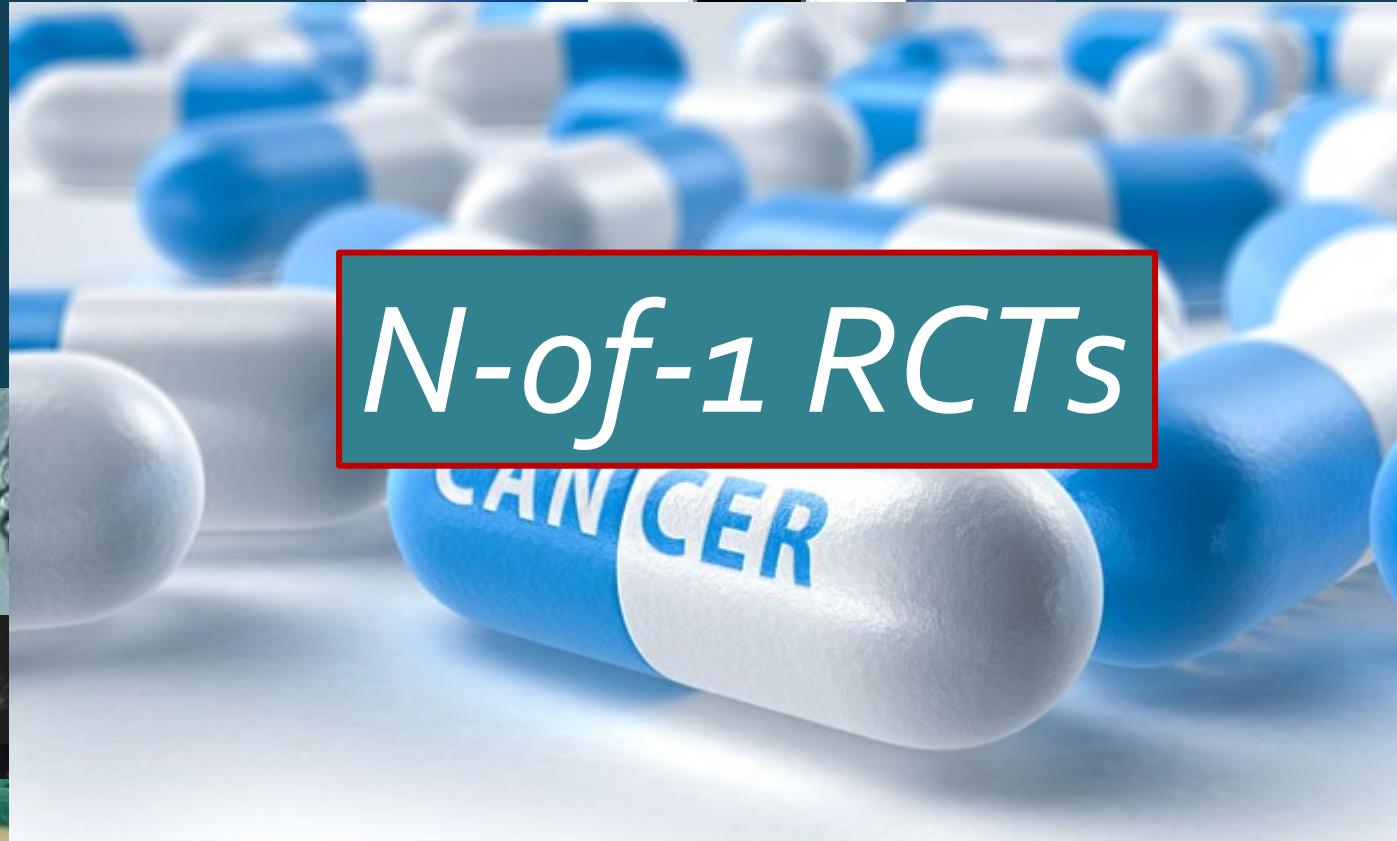


**...Yogi Bera**

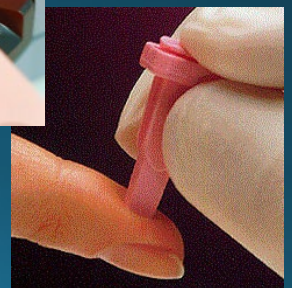
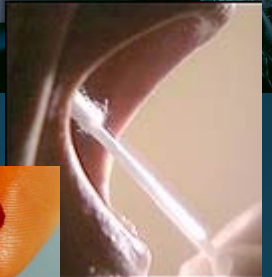
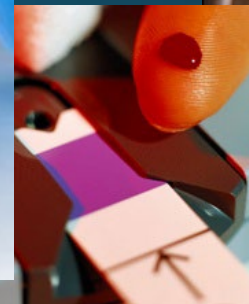
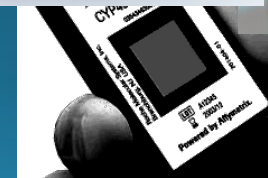
*Emerging  
issues*

# Personalized medicine

## The future has arrived!



N-of-1 RCTs





**Artificial GENERAL  
intelligence??**



**Plagiarism  
Deep fakes  
Hallucination  
Disinformation**

# ChatGPT

- Thesis writing
- Manuscripts for publication
- Peer review evaluations
- Grant applications
- **Ethics applications... ?**
  - Protocols
  - Participant information
  - Recruitment
  - Obtaining consent



*AI-trained avatar for giving information & obtaining consent.*

*How will we know  
whether an ethics  
application has been  
generated by  
ChatGPT, and  
whether it is  
hallucinating ... or  
LYING?*

*The Dark Side...*

*Serenity*

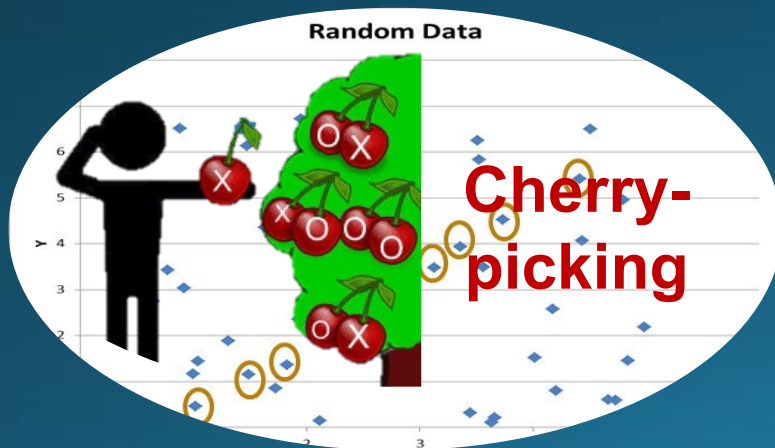
# Science & its Discontents



Science Denialism



Reproducibility crisis



# A four-year timeline of Trump's impact on science

From travel bans to human spaceflight to the coronavirus pandemic, US President Donald Trump's policies and actions have changed science.



# The rise of Science denialism

## How Trump damaged science – and why it could take decades to recover

The US president's actions have exacerbated the pandemic that has killed more than 200,000 people in the United States, rolled back environmental and public-health regulations and undermined science and scientific institutions. Some of the harm could be permanent.



## Four ways Trump has meddled in pandemic science – and why it matters

How US President Donald Trump and his administration have silenced scientists, meddled in their reports and ignored their advice.

[Giuliana Vignione](#)



### Af Bi SC

White polic

Nidhi



## PROTECTING THE INTEGRITY OF GOVERNMENT SCIENCE

A Report by the SCIENTIFIC INTEGRITY FAST-TRACK ACTION COMMITTEE

of the NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

January 2022

### T SC

Guid Wh

Jeff



## A Framework for Federal Scientific Integrity Policy and Practice

Guidance by the SCIENTIFIC INTEGRITY FRAMEWORK INTERAGENCY WORKING GROUP

of the NATIONAL SCIENCE AND TECHNOLOGY COUNCIL

January 2023



*Awaiting the next scandal...*



*Forecast: stormy seas ahead...*

