Mimicry of Nature for Disease Detection and Destruction.

si unum sit melius, quod est certum modum naturae

if one way be better than another, be sure it is natures'
What is Seen: ‘tears in the rain’
‘nose have they but they smell not’ Ps 115v5
How most interact with environment
30% of our genome ‘smell/taste’

Most of Nature use taste and smell.

through faith we walk, not through sight
Electronic Nose

Smell → Brain → Neurons → Human

Raw signals → Processed signal → Neural network

 Samples: Costa Rica Coffee, Columbian Coffee, Brazilian Coffee
Measurement of baseline resistance

Each sensor changes its resistance by a different amount, making a pattern of the change.

If a different compound had caused the air to change, the output pattern will be different:
or will sniff you now!’
empirical evidence
‘He setteth the solitary in families’ Ps 68

‘preuves fatigués de la vérité’
Disease Detection: Biopsy Body Bits

Μὴ μου ἁπτοῦ (mē mou haptou); noli me tangere. John 20v17
Body: light and obscurity

‘this is the sign of the covenant’
Spectral imaging

Separation of objects by analysis of colour differences
Rainbow mimetics
‘swords into ploughshares’
Detecting subtle eye damage
Tissue Fluorescence
Somewhere beyond the rainbow
Spectral dance
damage to diagnose
The current situation.

Diagnosis of Visible+ Biopsy

352 individual biopsies all normal never needed removal

500 1000 1500 2000

lactate whole blood glycogen Fatty acid cholesterol RNA DNA elastin collagen
A walk on Minchinhampton Common with a ‘the coffee break’
Richard Nixon ‘War on Cancer’

‘it is Afghanistan, it takes all you got and you still can’t win’

‘living with my enemy’?
‘are your genes your fate’!

- cancer is a competitive system
- *random* variation
- fittest variants survive
- replete with chance
Gresham's law: Economic "when a nation overvalues one type of money and undervalues another, the undervalued money will disappear." "Bad money drives out good."
Selection of the Sinister by Selective Destruction

Solution: Adaptive Therapy

Gardening Grazing

A walk in the Forest of Dean
A walk with the Gloucester cattle
A walk at Highgrove
A walk in Westonbirt Arboretum.

'living in a fuel tank'
Photodynamic therapy (PDT)

*yehi 'or (Let there be light)*

24 hours

Photosensitiser
‘light harvesting molecule’

Collects in
‘hungry cells’

Turned on
*by the Light*
Skin Cancer
Oesophageal cancer
Patient Pathway: Early Detection results in Immediate precise complete removal.
The beginning of wisdom

‘consider the lilies’ Mat 6v28

Prevention of Progression
Thank you