

**The Skeptic Zone**  
**Show 302 - 3 August 2014**



**Heidi Robertson**

1  
00:00:20,790 --> 00:00:09,589  
welcome to the skeptic zone the podcast

2  
00:00:24,349 --> 00:00:22,950  
hello and welcome to the skeptic zone

3  
00:00:25,910 --> 00:00:24,359  
episode number

4  
00:00:28,230 --> 00:00:25,920  
302

5  
00:00:30,150 --> 00:00:28,240  
for the 3rd of august 2014 richard

6  
00:00:31,669 --> 00:00:30,160  
saunders here with you from sydney

7  
00:00:34,709 --> 00:00:31,679  
australia

8  
00:00:37,270 --> 00:00:34,719  
another mixed bag folks another mixed

9  
00:00:38,549 --> 00:00:37,280  
bag of goodies coming up on this week's

10  
00:00:41,190 --> 00:00:38,559  
skeptic zone we're going to kick off

11  
00:00:43,990 --> 00:00:41,200  
with an interview with a lovely lady who

12  
00:00:46,470 --> 00:00:44,000  
lives right up in the far north coast

13  
00:00:48,869 --> 00:00:46,480

area of this state new south wales heidi

14

00:00:50,950 --> 00:00:48,879

robinson is going to be chatting to us

15

00:00:52,630 --> 00:00:50,960

about the northern rivers

16

00:00:54,150 --> 00:00:52,640

vaccination

17

00:00:56,470 --> 00:00:54,160

supporters group

18

00:01:00,150 --> 00:00:56,480

now heidi is living in the area which is

19

00:01:01,670 --> 00:01:00,160

a real epicenter one might say for the

20

00:01:04,149 --> 00:01:01,680

anti-vaxxers

21

00:01:06,310 --> 00:01:04,159

and she and her friends have

22

00:01:07,910 --> 00:01:06,320

formed this group

23

00:01:09,429 --> 00:01:07,920

and in the interview you'll hear it come

24

00:01:11,510 --> 00:01:09,439

up with an interesting

25

00:01:14,149 --> 00:01:11,520

phrasing way to say it

26

00:01:17,030 --> 00:01:14,159

she said that she had to come out as a

27

00:01:18,710 --> 00:01:17,040

pro vaccination supporter

28

00:01:20,630 --> 00:01:18,720

that's just bizarre when you think about

29

00:01:22,149 --> 00:01:20,640

it and if you're living in that area of

30

00:01:25,190 --> 00:01:22,159

australia i think you'll be very

31

00:01:27,590 --> 00:01:25,200

interested indeed to learn more about

32

00:01:29,670 --> 00:01:27,600

the northern rivers

33

00:01:31,830 --> 00:01:29,680

vaccination supporters group following

34

00:01:33,510 --> 00:01:31,840

that it's evidence please with joe

35

00:01:35,270 --> 00:01:33,520

alabaster joe's going to be looking at

36

00:01:38,069 --> 00:01:35,280

the recent convictions

37

00:01:40,630 --> 00:01:38,079

into those ridiculous

38

00:01:43,109 --> 00:01:40,640

bomb detectors which worked on the

39

00:01:45,749 --> 00:01:43,119

dowsing principle

40

00:01:48,469 --> 00:01:45,759

fake as a

41

00:01:50,550 --> 00:01:48,479

i i remember when i was a kid hearing

42

00:01:52,230 --> 00:01:50,560

the term fake as a

43

00:01:54,069 --> 00:01:52,240

three pound note maybe i'm

44

00:01:57,190 --> 00:01:54,079

misremembering

45

00:01:58,469 --> 00:01:57,200

fake is something that's really fake

46

00:01:59,429 --> 00:01:58,479

joe's going to fill us in about the

47

00:02:01,830 --> 00:01:59,439

latest

48

00:02:03,830 --> 00:02:01,840

uh news concerning those and some

49

00:02:05,910 --> 00:02:03,840

convictions following that it's a week

50

00:02:07,590 --> 00:02:05,920

in science from the royal institution of

51  
00:02:10,309 --> 00:02:07,600  
australia

52  
00:02:12,229 --> 00:02:10,319  
i keep churning them out week after week

53  
00:02:13,110 --> 00:02:12,239  
well every week is a week in science i

54  
00:02:16,949 --> 00:02:13,120  
think

55  
00:02:18,630 --> 00:02:16,959  
and then after that details about how

56  
00:02:19,750 --> 00:02:18,640  
you can win

57  
00:02:23,350 --> 00:02:19,760  
a

58  
00:02:24,710 --> 00:02:23,360  
box set of the new cosmos series on dvd

59  
00:02:26,229 --> 00:02:24,720  
now this is only for australian

60  
00:02:28,949 --> 00:02:26,239  
listeners i'm sorry to say simply

61  
00:02:31,270 --> 00:02:28,959  
because of region issues

62  
00:02:32,309 --> 00:02:31,280  
uh but australian listeners if you want

63  
00:02:35,589 --> 00:02:32,319

to win

64

00:02:38,150 --> 00:02:35,599

your own copy of the cosmos

65

00:02:40,070 --> 00:02:38,160

the new cosmos series courtesy of our

66

00:02:41,750 --> 00:02:40,080

good friends at the national geographic

67

00:02:44,229 --> 00:02:41,760

channel in australia

68

00:02:46,229 --> 00:02:44,239

keep listening for more details coming

69

00:02:48,550 --> 00:02:46,239

up later on in the show we're running a

70

00:02:50,869 --> 00:02:48,560

little bit of a competition then to

71

00:02:53,430 --> 00:02:50,879

round off the show it's a grain of salt

72

00:02:54,229 --> 00:02:53,440

with iran segev even more interviews

73

00:02:56,070 --> 00:02:54,239

from

74

00:02:58,949 --> 00:02:56,080

qed the um

75

00:03:00,949 --> 00:02:58,959

really good uh convention in manchester

76

00:03:02,309 --> 00:03:00,959

earlier in the year ron's going to be

77

00:03:05,110 --> 00:03:02,319

talking with

78

00:03:07,190 --> 00:03:05,120

rhys morgan the young

79

00:03:08,710 --> 00:03:07,200

reese morgan well he was young when he

80

00:03:09,670 --> 00:03:08,720

got into all this and he's still quite

81

00:03:11,910 --> 00:03:09,680

young

82

00:03:13,110 --> 00:03:11,920

that's to round off the show again a big

83

00:03:14,949 --> 00:03:13,120

thank you to all those people who have

84

00:03:17,270 --> 00:03:14,959

been plugging and watching and promoting

85

00:03:18,390 --> 00:03:17,280

the vaccination chronicles my little

86

00:03:20,630 --> 00:03:18,400

documentary

87

00:03:23,270 --> 00:03:20,640

i've been working very hard for the last

88

00:03:25,670 --> 00:03:23,280

week or so on the dvd

89

00:03:27,589 --> 00:03:25,680

of the vaccination chronicles which has

90

00:03:29,910 --> 00:03:27,599

extra features

91

00:03:31,830 --> 00:03:29,920

and what's taking up a lot of my time is

92

00:03:33,670 --> 00:03:31,840

actually putting in all the subtitles

93

00:03:36,470 --> 00:03:33,680

i've got the english subtitles all in

94

00:03:38,949 --> 00:03:36,480

the italian ones i'm nearly finished

95

00:03:40,550 --> 00:03:38,959

i've got about

96

00:03:44,149 --> 00:03:40,560

oh i don't know about

97

00:03:46,229 --> 00:03:44,159

five minutes worth of timeline time

98

00:03:48,630 --> 00:03:46,239

if you get my meaning to uh

99

00:03:50,949 --> 00:03:48,640

match up all the italian subtitles then

100

00:03:53,750 --> 00:03:50,959

i'll start work on the portuguese and in

101  
00:03:55,509 --> 00:03:53,760  
the coming week i hope to receive the

102  
00:03:57,030 --> 00:03:55,519  
whole hopefully spanish and french and

103  
00:03:59,190 --> 00:03:57,040  
german and

104  
00:04:00,949 --> 00:03:59,200  
norwegian and turkish i think something

105  
00:04:03,670 --> 00:04:00,959  
like that now this is all thanks to my

106  
00:04:05,830 --> 00:04:03,680  
good friend susan gerbic who has a

107  
00:04:07,030 --> 00:04:05,840  
worldwide network of people ready to

108  
00:04:12,869 --> 00:04:07,040  
help

109  
00:04:14,949 --> 00:04:12,879  
this translating which is just fantastic

110  
00:04:17,349 --> 00:04:14,959  
it's just a long

111  
00:04:20,229 --> 00:04:17,359  
process to match them all up correctly

112  
00:04:22,390 --> 00:04:20,239  
in the timeline and set them properly on

113  
00:04:24,390 --> 00:04:22,400

the video

114

00:04:26,950 --> 00:04:24,400

all sorts of things like that

115

00:04:28,469 --> 00:04:26,960

but yeah when that dvd comes out i'll

116

00:04:29,510 --> 00:04:28,479

certainly let everybody

117

00:04:31,830 --> 00:04:29,520

know

118

00:04:35,030 --> 00:04:31,840

um it's um

119

00:04:36,550 --> 00:04:35,040

it's therapeutic in a way actually to

120

00:04:38,950 --> 00:04:36,560

do all this

121

00:04:40,950 --> 00:04:38,960

dvd work and subtitling work very

122

00:04:43,749 --> 00:04:40,960

interesting i'll be back later on with

123

00:04:47,030 --> 00:04:43,759

some news about james the amazing

124

00:04:50,310 --> 00:04:47,040

randy and his visit to australia some

125

00:04:52,550 --> 00:04:50,320

early information there but for now

126  
00:04:53,830 --> 00:04:52,560  
but for now i'm going to run downstairs

127  
00:04:55,749 --> 00:04:53,840  
i'm going to

128  
00:04:57,990 --> 00:04:55,759  
run out the door

129  
00:05:00,070 --> 00:04:58,000  
shake the coconut tree

130  
00:05:02,550 --> 00:05:00,080  
see if one falls down

131  
00:05:05,830 --> 00:05:02,560  
and indulge in some lovely

132  
00:05:07,189 --> 00:05:05,840  
homeopathic coconut water

133  
00:05:09,189 --> 00:05:07,199  
yeah

134  
00:05:29,990 --> 00:05:09,199  
well i try to work that one out i hope

135  
00:05:34,790 --> 00:05:32,310  
and joining me now from the beautiful

136  
00:05:36,870 --> 00:05:34,800  
far north coast of this state new south

137  
00:05:38,790 --> 00:05:36,880  
wales up in the area they call the

138  
00:05:41,029 --> 00:05:38,800

northern rivers it's heidi robertson

139

00:05:43,990 --> 00:05:41,039

hello heidi hi

140

00:05:46,310 --> 00:05:44,000

waving hi you're waving but i can't see

141

00:05:48,070 --> 00:05:46,320

you because just a moment ago we turned

142

00:05:50,230 --> 00:05:48,080

off our skype cameras to save some

143

00:05:52,710 --> 00:05:50,240

bandwidth so i'll pretend i can see you

144

00:05:54,070 --> 00:05:52,720

waving you cut me off i'm making funny

145

00:05:56,550 --> 00:05:54,080

faces now

146

00:05:59,670 --> 00:05:58,150

thank you for having me again on the

147

00:06:01,430 --> 00:05:59,680

show that's all right i should turn on

148

00:06:03,990 --> 00:06:01,440

the camera again because you were on the

149

00:06:07,510 --> 00:06:04,000

show uh some time ago now in fact i met

150

00:06:09,909 --> 00:06:07,520

you at skepticam here in sydney

151  
00:06:12,870 --> 00:06:09,919  
very nice and you came up and wanted to

152  
00:06:15,350 --> 00:06:12,880  
meet me and say hello and i discovered

153  
00:06:17,510 --> 00:06:15,360  
that you're very passionate and very

154  
00:06:19,830 --> 00:06:17,520  
interested in promoting the cause of

155  
00:06:22,150 --> 00:06:19,840  
vaccination and in fact you're involved

156  
00:06:24,309 --> 00:06:22,160  
with the northern rivers vaccination

157  
00:06:27,350 --> 00:06:24,319  
supporters what can you tell me about

158  
00:06:31,909 --> 00:06:27,360  
that what can i tell you well um we

159  
00:06:34,950 --> 00:06:31,919  
formed in may of 2013 so we're just over

160  
00:06:35,830 --> 00:06:34,960  
a year old now um

161  
00:06:38,309 --> 00:06:35,840  
so

162  
00:06:40,710 --> 00:06:38,319  
i i moved up to this

163  
00:06:42,950 --> 00:06:40,720

uh region in northern new south wales

164

00:06:45,029 --> 00:06:42,960

from sydney um

165

00:06:46,469 --> 00:06:45,039

and and my husband moved here from

166

00:06:48,150 --> 00:06:46,479

brisbane so

167

00:06:50,469 --> 00:06:48,160

this was our first sort of taste of

168

00:06:53,189 --> 00:06:50,479

country living and and we always loved

169

00:06:54,469 --> 00:06:53,199

the area but we had no idea when we

170

00:06:57,230 --> 00:06:54,479

moved here

171

00:06:59,830 --> 00:06:57,240

um that there was quite a strong

172

00:07:03,270 --> 00:06:59,840

anti-vaccination movement in the region

173

00:07:04,230 --> 00:07:03,280

no idea in fact i didn't even know until

174

00:07:05,350 --> 00:07:04,240

um

175

00:07:08,469 --> 00:07:05,360

my

176

00:07:10,790 --> 00:07:08,479

first son charlie who's now seven

177

00:07:13,270 --> 00:07:10,800

um started preschool when he was three

178

00:07:14,710 --> 00:07:13,280

years old and

179

00:07:16,230 --> 00:07:14,720

i um

180

00:07:19,350 --> 00:07:16,240

i was just chatting to one of the other

181

00:07:21,189 --> 00:07:19,360

mums and um

182

00:07:23,350 --> 00:07:21,199

she told me that she thought her

183

00:07:26,390 --> 00:07:23,360

daughter had mumps over the holidays and

184

00:07:30,790 --> 00:07:26,400

um me being quite naive about the whole

185

00:07:33,110 --> 00:07:30,800

thing um just sort of blurted out but oh

186

00:07:35,589 --> 00:07:33,120

your she would have had the the mmr

187

00:07:36,870 --> 00:07:35,599

wouldn't she and um mum just sort of

188

00:07:39,830 --> 00:07:36,880

looked at me and

189

00:07:42,870 --> 00:07:39,840

shook her head and and uh i was i was a

190

00:07:45,029 --> 00:07:42,880

little bit gobsmacked

191

00:07:47,830 --> 00:07:45,039

that was kind of the start of

192

00:07:49,990 --> 00:07:47,840

i sort of went home and i thought what

193

00:07:52,390 --> 00:07:50,000

you know what was going on there and

194

00:07:53,510 --> 00:07:52,400

sort of investigated a bit further about

195

00:07:54,390 --> 00:07:53,520

um

196

00:07:56,469 --> 00:07:54,400

you know

197

00:07:59,350 --> 00:07:56,479

um talked to some other people and i i

198

00:08:01,909 --> 00:07:59,360

just i sort of learned that there was

199

00:08:03,270 --> 00:08:01,919

this sort of strong anti-vaccination

200

00:08:05,270 --> 00:08:03,280

movement here

201  
00:08:08,309 --> 00:08:05,280  
um and i'd never come across anything

202  
00:08:10,830 --> 00:08:08,319  
like it before um i it just had never

203  
00:08:15,589 --> 00:08:10,840  
never occurred to me that

204  
00:08:18,230 --> 00:08:15,599  
um that this sort of um thinking was so

205  
00:08:20,710 --> 00:08:18,240  
prevalent um and especially in this area

206  
00:08:22,230 --> 00:08:20,720  
so anyway it eventually

207  
00:08:24,230 --> 00:08:22,240  
led me to join the northern rivers

208  
00:08:27,270 --> 00:08:24,240  
vaccination supporters group and we're

209  
00:08:31,270 --> 00:08:27,280  
just a group of community members um

210  
00:08:33,670 --> 00:08:31,280  
grassroots no funding um

211  
00:08:36,709 --> 00:08:33,680  
just a common common concern about the

212  
00:08:39,509 --> 00:08:36,719  
low vaccination rates in our region and

213  
00:08:42,310 --> 00:08:39,519

you know as you know mullen bimby

214

00:08:46,230 --> 00:08:42,320

that's in this region has

215

00:08:49,670 --> 00:08:46,240

the dubious honor of having the lowest

216

00:08:50,630 --> 00:08:49,680

vaccination rates in the whole country

217

00:08:52,150 --> 00:08:50,640

so

218

00:08:55,829 --> 00:08:52,160

for kids

219

00:08:57,430 --> 00:08:55,839

aged up to five years of age um

220

00:08:59,590 --> 00:08:57,440

i think the vaccination rates are about

221

00:09:02,870 --> 00:08:59,600

48 percent

222

00:09:04,790 --> 00:09:02,880

which is um that's that's awful

223

00:09:06,310 --> 00:09:04,800

well it's all it's awful and it's

224

00:09:09,350 --> 00:09:06,320

frightening um

225

00:09:13,190 --> 00:09:09,360

considering that um a lot of the vaccine

226

00:09:15,990 --> 00:09:13,200

preventable diseases need a uh

227

00:09:21,590 --> 00:09:16,000

herd immunity of um

228

00:09:26,070 --> 00:09:24,070

they do and in fact it's interesting

229

00:09:27,990 --> 00:09:26,080

because that area you you talk of the

230

00:09:30,550 --> 00:09:28,000

far north coast and new south wales

231

00:09:32,389 --> 00:09:30,560

that's very close in fact it it

232

00:09:34,949 --> 00:09:32,399

bangalow is part of that area and that's

233

00:09:36,949 --> 00:09:34,959

where the uh australian vaccination

234

00:09:39,269 --> 00:09:36,959

network now the australian vaccination

235

00:09:42,630 --> 00:09:39,279

skeptics network is based

236

00:09:44,710 --> 00:09:42,640

yes yep and um yeah i had no idea about

237

00:09:45,750 --> 00:09:44,720

that when i first moved here but i sure

238

00:09:47,190 --> 00:09:45,760

do now

239

00:09:48,070 --> 00:09:47,200

um

240

00:09:51,910 --> 00:09:48,080

so

241

00:09:53,750 --> 00:09:51,920

i guess the purpose of our group is to

242

00:09:55,590 --> 00:09:53,760

well primarily to

243

00:09:58,630 --> 00:09:55,600

to give um

244

00:10:00,710 --> 00:09:58,640

to give people their voices back it's

245

00:10:03,670 --> 00:10:00,720

it really dumbfounded me when i moved to

246

00:10:05,910 --> 00:10:03,680

this area that it's um

247

00:10:07,750 --> 00:10:05,920

it's it's kind of a taboo subject to

248

00:10:08,870 --> 00:10:07,760

bring up vaccination people just don't

249

00:10:09,910 --> 00:10:08,880

bring it up

250

00:10:10,949 --> 00:10:09,920

um

251  
00:10:17,030 --> 00:10:10,959  
and

252  
00:10:21,990 --> 00:10:18,710  
so

253  
00:10:25,670 --> 00:10:22,000  
the the the anti-vaccination crowd that

254  
00:10:28,630 --> 00:10:25,680  
are around here are very loud

255  
00:10:30,310 --> 00:10:28,640  
and um they're very vocal and you find

256  
00:10:31,750 --> 00:10:30,320  
that even though the majority of people

257  
00:10:34,470 --> 00:10:31,760  
here still

258  
00:10:35,910 --> 00:10:34,480  
do vaccinate only just in mulan bimbi

259  
00:10:37,430 --> 00:10:35,920  
it's only

260  
00:10:39,430 --> 00:10:37,440  
just the majority

261  
00:10:40,949 --> 00:10:39,440  
um but they don't want to speak up

262  
00:10:42,630 --> 00:10:40,959  
because they don't it's a small

263  
00:10:44,470 --> 00:10:42,640

community it's a different way of living

264

00:10:45,350 --> 00:10:44,480

in the country everyone knows everyone

265

00:10:47,509 --> 00:10:45,360

else

266

00:10:49,590 --> 00:10:47,519

and you don't want to be ostracized from

267

00:10:51,829 --> 00:10:49,600

that small community and so sometimes

268

00:10:54,069 --> 00:10:51,839

it's easier just to stay quiet

269

00:10:56,389 --> 00:10:54,079

but we've got to change we've got to

270

00:10:58,069 --> 00:10:56,399

change that because

271

00:11:00,069 --> 00:10:58,079

and i thought to myself and it was

272

00:11:02,150 --> 00:11:00,079

really scary for me coming out as a

273

00:11:04,470 --> 00:11:02,160

pro-vaxxer you know that's that's what i

274

00:11:05,590 --> 00:11:04,480

i sort of labeled it as it was like

275

00:11:07,350 --> 00:11:05,600

coming out

276

00:11:09,590 --> 00:11:07,360

and um

277

00:11:11,670 --> 00:11:09,600

and it was really scary and and then i

278

00:11:13,590 --> 00:11:11,680

thought no hang on why

279

00:11:15,990 --> 00:11:13,600

why should i feel this way it should be

280

00:11:19,030 --> 00:11:16,000

a normal thing it should be

281

00:11:21,750 --> 00:11:19,040

the shift has to change from it being a

282

00:11:23,509 --> 00:11:21,760

social norm to not vaccinate we've got

283

00:11:25,750 --> 00:11:23,519

to change this and if i want to raise my

284

00:11:27,590 --> 00:11:25,760

family in this beautiful region and i do

285

00:11:29,110 --> 00:11:27,600

i love it here

286

00:11:30,870 --> 00:11:29,120

i can't just

287

00:11:32,710 --> 00:11:30,880

and whinge to

288

00:11:34,870 --> 00:11:32,720

to my family and friends about it i've

289

00:11:36,470 --> 00:11:34,880

got to get out and do something so

290

00:11:38,949 --> 00:11:36,480

we want to give the community the

291

00:11:41,190 --> 00:11:38,959

pro-axes in our community a voice and

292

00:11:42,550 --> 00:11:41,200

say look it's okay to say to get out

293

00:11:45,350 --> 00:11:42,560

there and say

294

00:11:47,430 --> 00:11:45,360

i vaccinate and it's okay to vaccinate

295

00:11:49,430 --> 00:11:47,440

and we want it we want to correct all

296

00:11:51,750 --> 00:11:49,440

the misinformation um that the

297

00:11:52,630 --> 00:11:51,760

anti-vaccination movement has put out

298

00:11:54,470 --> 00:11:52,640

there

299

00:11:56,550 --> 00:11:54,480

you know some of it's just ludicrous as

300

00:11:57,990 --> 00:11:56,560

you know um

301  
00:12:02,550 --> 00:11:58,000  
and

302  
00:12:04,550 --> 00:12:02,560  
we don't want to be confrontational we

303  
00:12:07,910 --> 00:12:04,560  
don't want to start a debate we're not

304  
00:12:08,629 --> 00:12:07,920  
interested in um creating a conversation

305  
00:12:12,389 --> 00:12:08,639  
with

306  
00:12:14,550 --> 00:12:12,399  
anti-vaccination crowd because

307  
00:12:15,430 --> 00:12:14,560  
we know we know that we'll never sway

308  
00:12:17,110 --> 00:12:15,440  
them

309  
00:12:20,310 --> 00:12:17,120  
what we want to do is engage with the

310  
00:12:21,829 --> 00:12:20,320  
people who are still unsure sitting on

311  
00:12:23,670 --> 00:12:21,839  
the fence they've heard this they've

312  
00:12:25,190 --> 00:12:23,680  
heard that and then just not sure which

313  
00:12:27,509 --> 00:12:25,200

way to go

314

00:12:29,750 --> 00:12:27,519

they're the people that we want to um

315

00:12:30,870 --> 00:12:29,760

engage with and start a conversation

316

00:12:33,110 --> 00:12:30,880

with

317

00:12:35,350 --> 00:12:33,120

yeah absolutely right absolutely right

318

00:12:37,110 --> 00:12:35,360

and it's also interesting to to note

319

00:12:40,310 --> 00:12:37,120

that that area

320

00:12:42,710 --> 00:12:40,320

up there near the top of new south wales

321

00:12:45,269 --> 00:12:42,720

it's quite famous since the

322

00:12:45,990 --> 00:12:45,279

i guess the late 60s as being a sort of

323

00:12:52,230 --> 00:12:46,000

the

324

00:12:53,670 --> 00:12:52,240

capital of australia i haven't been up

325

00:12:55,829 --> 00:12:53,680

there for many years myself but i

326

00:12:57,030 --> 00:12:55,839

imagine that sort of feeling is still

327

00:12:59,590 --> 00:12:57,040

prevalent

328

00:13:01,670 --> 00:12:59,600

oh it is and you know what it's great

329

00:13:04,629 --> 00:13:01,680

you know in a lot of ways it's great you

330

00:13:07,269 --> 00:13:04,639

know it's the diversity and the talent

331

00:13:09,030 --> 00:13:07,279

and you know the the the artists and the

332

00:13:11,269 --> 00:13:09,040

musicians um

333

00:13:13,110 --> 00:13:11,279

the talent up here is great and i i love

334

00:13:14,470 --> 00:13:13,120

diversification you know what a boring

335

00:13:15,750 --> 00:13:14,480

world it would be if we were all the

336

00:13:16,949 --> 00:13:15,760

same but

337

00:13:18,629 --> 00:13:16,959

um

338

00:13:28,629 --> 00:13:18,639

the

339

00:13:39,030 --> 00:13:28,639

um

340

00:13:41,190 --> 00:13:39,040

and alternative medicine

341

00:13:42,310 --> 00:13:41,200

is rampant up here and

342

00:13:45,829 --> 00:13:42,320

and

343

00:13:48,710 --> 00:13:45,839

to a large extent i think

344

00:13:51,670 --> 00:13:48,720

i i try and have a

345

00:13:52,790 --> 00:13:51,680

tolerance to it but where my tolerance

346

00:13:54,710 --> 00:13:52,800

ends

347

00:13:56,310 --> 00:13:54,720

is um

348

00:13:58,150 --> 00:13:56,320

is when

349

00:14:00,829 --> 00:13:58,160

people are put at risk and especially

350

00:14:03,590 --> 00:14:00,839

babies and children that are relying

351  
00:14:05,350 --> 00:14:03,600  
on adults their parent their you know

352  
00:14:07,670 --> 00:14:05,360  
their parents or their guardians to make

353  
00:14:08,949 --> 00:14:07,680  
the best decisions for them um

354  
00:14:11,670 --> 00:14:08,959  
and

355  
00:14:13,430 --> 00:14:11,680  
i just can't i just i just can't bear

356  
00:14:16,870 --> 00:14:13,440  
that you know

357  
00:14:18,550 --> 00:14:16,880  
so if people are for instance using

358  
00:14:20,310 --> 00:14:18,560  
homeopathy and they're thinking that

359  
00:14:21,829 --> 00:14:20,320  
that is a viable alternative to

360  
00:14:24,470 --> 00:14:21,839  
vaccination

361  
00:14:27,430 --> 00:14:24,480  
i'm going to speak out against it right

362  
00:14:31,829 --> 00:14:27,440  
if i say you know if people aren't aware

363  
00:14:35,829 --> 00:14:33,350

you know that

364

00:14:37,750 --> 00:14:35,839

that uh they're next to useless well

365

00:14:38,790 --> 00:14:37,760

they are useless they're not even next

366

00:14:42,629 --> 00:14:38,800

to you

367

00:14:46,069 --> 00:14:42,639

um not only do they not um do what they

368

00:14:47,670 --> 00:14:46,079

claim to do as far as teething goes

369

00:14:49,110 --> 00:14:47,680

but they're also a strangulation and

370

00:14:51,189 --> 00:14:49,120

choking hazard

371

00:14:53,269 --> 00:14:51,199

and that makes me angry

372

00:14:55,590 --> 00:14:53,279

but the vaccination thing is really my

373

00:14:57,590 --> 00:14:55,600

um my focus and trying to correct the

374

00:14:59,829 --> 00:14:57,600

misinformation around that but as far as

375

00:15:02,230 --> 00:14:59,839

that like i was just at a local fair

376

00:15:04,710 --> 00:15:02,240

today and there was there was music and

377

00:15:07,750 --> 00:15:04,720

there was artwork and and the sense of

378

00:15:10,710 --> 00:15:07,760

community is absolutely fantastic um if

379

00:15:14,550 --> 00:15:10,720

we can just turn around this um

380

00:15:17,670 --> 00:15:14,560

this trend um this part of the ideology

381

00:15:21,030 --> 00:15:17,680

up here that vaccination is a is an evil

382

00:15:23,110 --> 00:15:21,040

is an evil thing um you know

383

00:15:26,389 --> 00:15:23,120

and and why can't we do that there's no

384

00:15:27,829 --> 00:15:26,399

reason why we can't do that i think um i

385

00:15:30,150 --> 00:15:27,839

think i think you're absolutely right

386

00:15:32,150 --> 00:15:30,160

and i've been noticing on your group's

387

00:15:34,389 --> 00:15:32,160

page which is the facebook page northern

388

00:15:37,670 --> 00:15:34,399

rivers vaccination supporters

389

00:15:39,910 --> 00:15:37,680

uh there's um a campaign or a push that

390

00:15:43,030 --> 00:15:39,920

you're doing to put your flyers and

391

00:15:45,750 --> 00:15:43,040

leaflets up in hospitals and other areas

392

00:15:47,750 --> 00:15:45,760

yes and we have we've actually um we've

393

00:15:50,230 --> 00:15:47,760

been quite successful with that medicare

394

00:15:53,509 --> 00:15:50,240

local north coast medicare local up here

395

00:15:55,829 --> 00:15:53,519

um has heard about us and they have um

396

00:15:57,990 --> 00:15:55,839

they have kindly offered to we we had

397

00:16:00,069 --> 00:15:58,000

some flyers made up which we we we

398

00:16:01,110 --> 00:16:00,079

funded ourselves we we

399

00:16:03,430 --> 00:16:01,120

are not

400

00:16:04,470 --> 00:16:03,440

farmer skills or government skills we

401  
00:16:06,470 --> 00:16:04,480  
actually

402  
00:16:08,870 --> 00:16:06,480  
we passed the virtual hat around our

403  
00:16:11,350 --> 00:16:08,880  
facebook group we got the funds to make

404  
00:16:13,189 --> 00:16:11,360  
a few flyers up you mean you haven't got

405  
00:16:14,069 --> 00:16:13,199  
your check yet from big farmer i'm

406  
00:16:16,870 --> 00:16:14,079  
shocked

407  
00:16:19,670 --> 00:16:16,880  
i'm still waiting i'm still waiting

408  
00:16:22,790 --> 00:16:19,680  
um maybe one day i'll get drive around

409  
00:16:25,590 --> 00:16:22,800  
in that gold rolls royce

410  
00:16:28,310 --> 00:16:25,600  
not quite yet anyway so they they kindly

411  
00:16:29,829 --> 00:16:28,320  
offered to get our flyers out to

412  
00:16:32,230 --> 00:16:29,839  
70

413  
00:16:34,829 --> 00:16:32,240

gp practices wow

414

00:16:38,150 --> 00:16:34,839

from grafton all the way up to tweed

415

00:16:40,949 --> 00:16:38,160

heads so we made some posters up as well

416

00:16:41,990 --> 00:16:40,959

so now the gps are all aware of our

417

00:16:44,389 --> 00:16:42,000

group

418

00:16:46,150 --> 00:16:44,399

and they can

419

00:16:48,470 --> 00:16:46,160

they can recommend

420

00:16:49,670 --> 00:16:48,480

parents or hesitant parents

421

00:16:52,310 --> 00:16:49,680

to us

422

00:16:56,150 --> 00:16:52,320

and they can be assured that

423

00:16:57,829 --> 00:16:56,160

we will give them credible information

424

00:17:00,389 --> 00:16:57,839

we'll we'll give them the credible

425

00:17:01,990 --> 00:17:00,399

websites to go to

426  
00:17:04,870 --> 00:17:02,000  
and um

427  
00:17:06,069 --> 00:17:04,880  
and we're there as a support for them

428  
00:17:08,390 --> 00:17:06,079  
and um

429  
00:17:11,029 --> 00:17:08,400  
to make sure that they know that they're

430  
00:17:13,590 --> 00:17:11,039  
not they're not alone and um that there

431  
00:17:15,909 --> 00:17:13,600  
is a great deal of support out there for

432  
00:17:17,909 --> 00:17:15,919  
them that's fantastic and i i like the

433  
00:17:19,590 --> 00:17:17,919  
flies too they look great the logo is

434  
00:17:21,829 --> 00:17:19,600  
really nice it's like a

435  
00:17:23,909 --> 00:17:21,839  
family and enclosed in these these two

436  
00:17:25,270 --> 00:17:23,919  
big hands to symbolize the protection of

437  
00:17:27,829 --> 00:17:25,280  
vaccination

438  
00:17:29,990 --> 00:17:27,839

are your flies available online did you

439

00:17:31,270 --> 00:17:30,000

notice the dog in there i did notice the

440

00:17:34,789 --> 00:17:31,280

dog yes

441

00:17:36,950 --> 00:17:34,799

to vaccinate your pets as well yes um

442

00:17:38,710 --> 00:17:36,960

the flyers well

443

00:17:41,110 --> 00:17:38,720

if anyone is interested and actually

444

00:17:44,230 --> 00:17:41,120

that's a good idea we should

445

00:17:48,310 --> 00:17:45,510

i don't know what you call it a

446

00:17:51,830 --> 00:17:48,320

printable version i suppose of the flyer

447

00:17:55,110 --> 00:17:51,840

a pdf a pdf that's the one yeah

448

00:17:56,870 --> 00:17:55,120

yeah um we should put up that um

449

00:17:59,270 --> 00:17:56,880

that for people on our website so that

450

00:18:01,029 --> 00:17:59,280

they can download it print it yeah i

451  
00:18:03,669 --> 00:18:01,039  
would recommend it i think that would be

452  
00:18:05,909 --> 00:18:03,679  
um an excellent thing for you to do

453  
00:18:07,590 --> 00:18:05,919  
then people don't have to to wait for it

454  
00:18:09,590 --> 00:18:07,600  
if they want to put it in their local

455  
00:18:11,029 --> 00:18:09,600  
doctors or their local homeopaths and

456  
00:18:13,110 --> 00:18:11,039  
they can go right ahead

457  
00:18:19,350 --> 00:18:13,120  
yeah

458  
00:18:21,430 --> 00:18:19,360  
group have um have been putting the

459  
00:18:24,390 --> 00:18:21,440  
flyers up on various notice boards

460  
00:18:26,150 --> 00:18:24,400  
around the region um i've i've checked a

461  
00:18:28,630 --> 00:18:26,160  
couple of places lately that i put

462  
00:18:29,990 --> 00:18:28,640  
flyers up and they've been taken down

463  
00:18:31,669 --> 00:18:30,000

but

464

00:18:33,669 --> 00:18:31,679

i've put them back

465

00:18:35,750 --> 00:18:33,679

back up again and

466

00:18:36,870 --> 00:18:35,760

we'll soldier on with it

467

00:18:39,510 --> 00:18:36,880

um

468

00:18:41,510 --> 00:18:39,520

yeah so yeah no it's good and look we in

469

00:18:45,110 --> 00:18:41,520

the past year considering the group's

470

00:18:47,750 --> 00:18:45,120

only a year old now we've actually um

471

00:18:49,510 --> 00:18:47,760

we've achieved quite a lot um

472

00:18:52,710 --> 00:18:49,520

you've probably heard that queensland

473

00:18:55,029 --> 00:18:52,720

has recently um announced that they are

474

00:18:56,950 --> 00:18:55,039

introducing a free whooping cough

475

00:18:59,510 --> 00:18:56,960

vaccine for

476  
00:19:01,430 --> 00:18:59,520  
pregnant women in their third trimester

477  
00:19:03,909 --> 00:19:01,440  
um so we

478  
00:19:06,230 --> 00:19:03,919  
we've recently written to the um

479  
00:19:08,630 --> 00:19:06,240  
to jillian skinner new south wales

480  
00:19:10,390 --> 00:19:08,640  
health about that and

481  
00:19:12,150 --> 00:19:10,400  
saying look come on let's do this for

482  
00:19:13,990 --> 00:19:12,160  
new south wales as well

483  
00:19:15,990 --> 00:19:14,000  
um so we're writing a lot of letters all

484  
00:19:18,150 --> 00:19:16,000  
the time um

485  
00:19:21,669 --> 00:19:18,160  
you know we've had interviews with

486  
00:19:22,830 --> 00:19:21,679  
abc north coast radio but we've appeared

487  
00:19:25,190 --> 00:19:22,840  
in

488  
00:19:26,230 --> 00:19:25,200

the um

489

00:19:36,710 --> 00:19:26,240

the

490

00:19:39,190 --> 00:19:36,720

campaigns we've had stories our members

491

00:19:41,110 --> 00:19:39,200

have been in both those newspapers one

492

00:19:43,350 --> 00:19:41,120

of our members was recently on the 7 30

493

00:19:45,110 --> 00:19:43,360

report in queensland so we're getting

494

00:19:47,430 --> 00:19:45,120

out there and the

495

00:19:49,830 --> 00:19:47,440

really um another great thing is um

496

00:19:51,510 --> 00:19:49,840

alison one of our admins in our facebook

497

00:19:53,830 --> 00:19:51,520

group um

498

00:19:55,830 --> 00:19:53,840

got to do a poster presentation at the

499

00:19:57,029 --> 00:19:55,840

national immunisation conference in

500

00:19:59,590 --> 00:19:57,039

melbourne

501

00:20:01,350 --> 00:19:59,600

uh a month or two ago

502

00:20:03,430 --> 00:20:01,360

and that poster presentation she

503

00:20:05,909 --> 00:20:03,440

collaborated with a few other people to

504

00:20:08,310 --> 00:20:05,919

um to do that up including dr rachie

505

00:20:10,950 --> 00:20:08,320

who's been a great supporter like you

506

00:20:13,270 --> 00:20:10,960

have of our group absolutely

507

00:20:14,789 --> 00:20:13,280

so we got to um

508

00:20:17,270 --> 00:20:14,799

allison got to liaise with a lot of the

509

00:20:21,270 --> 00:20:17,280

big wigs in the uh

510

00:20:25,430 --> 00:20:23,830

but just to get out just just to get the

511

00:20:27,830 --> 00:20:25,440

message out that we're out there and

512

00:20:30,310 --> 00:20:27,840

we're around and um yeah so it's all

513

00:20:31,909 --> 00:20:30,320

going really well so far that's uh i'm

514

00:20:34,789 --> 00:20:31,919

delighted to hear it i'm delighted to

515

00:20:36,390 --> 00:20:34,799

hear it is the facebook group the the uh

516

00:20:37,669 --> 00:20:36,400

the portal is that where people should

517

00:20:43,750 --> 00:20:37,679

go

518

00:20:44,630 --> 00:20:43,760

facebook page um if they just um look

519

00:20:47,590 --> 00:20:44,640

for

520

00:20:50,470 --> 00:20:47,600

northern rivers vaccination supporters

521

00:20:53,750 --> 00:20:50,480

on facebook they can they can like that

522

00:20:55,830 --> 00:20:53,760

page and we've also got a website now

523

00:20:58,870 --> 00:20:55,840

the website one of our other

524

00:21:00,789 --> 00:20:58,880

gorgeous members um who's who's very

525

00:21:04,870 --> 00:21:00,799

good with this sort of stuff that we're

526  
00:21:06,549 --> 00:21:04,880  
not has offered to to revamp our website

527  
00:21:09,270 --> 00:21:06,559  
which is um

528  
00:21:11,190 --> 00:21:09,280  
which is now at

529  
00:21:12,070 --> 00:21:11,200  
nrvs

530  
00:21:14,390 --> 00:21:12,080  
dot

531  
00:21:19,110 --> 00:21:14,400  
info so northern rivers vaccination

532  
00:21:24,549 --> 00:21:21,990  
and as of monday

533  
00:21:26,710 --> 00:21:24,559  
this coming monday

534  
00:21:28,590 --> 00:21:26,720  
the old website address which was

535  
00:21:31,510 --> 00:21:28,600  
northern rivers vaccination

536  
00:21:33,029 --> 00:21:31,520  
supporters.org which was a handful

537  
00:21:35,830 --> 00:21:33,039  
mouthful

538  
00:21:37,669 --> 00:21:35,840

will now point to that new

539

00:21:40,070 --> 00:21:37,679

that news site so

540

00:21:42,710 --> 00:21:40,080

it's a new revamped website it's got

541

00:21:45,750 --> 00:21:42,720

some stories on there of our

542

00:21:47,669 --> 00:21:45,760

admin members and why we joined and our

543

00:21:51,029 --> 00:21:47,679

our brushes with vaccine preventable

544

00:21:53,510 --> 00:21:51,039

diseases it's got lots and lots of

545

00:21:55,909 --> 00:21:53,520

links reputable links

546

00:21:59,350 --> 00:21:55,919

um and all about the different vaccine

547

00:22:01,190 --> 00:21:59,360

preventable diseases um so it's yeah

548

00:22:02,549 --> 00:22:01,200

urge everyone to to go and have a look

549

00:22:04,310 --> 00:22:02,559

at it and even

550

00:22:07,350 --> 00:22:04,320

recommend it to

551  
00:22:09,190 --> 00:22:07,360  
to your friends and family if you um

552  
00:22:10,549 --> 00:22:09,200  
if if you have friends and family that

553  
00:22:15,190 --> 00:22:10,559  
are

554  
00:22:17,990 --> 00:22:15,200  
in the issue of vaccination

555  
00:22:20,310 --> 00:22:18,000  
absolutely so folks if you are up in the

556  
00:22:22,149 --> 00:22:20,320  
north coast and far northern coast of

557  
00:22:24,310 --> 00:22:22,159  
new south wales the northern rivers or

558  
00:22:25,990 --> 00:22:24,320  
in southern queensland the website to

559  
00:22:26,870 --> 00:22:26,000  
visit is nr r

560  
00:22:29,110 --> 00:22:26,880  
v

561  
00:22:34,390 --> 00:22:29,120  
s dot info

562  
00:22:36,230 --> 00:22:34,400  
remember that one

563  
00:22:38,710 --> 00:22:36,240

where you can find out about the group

564

00:22:41,190 --> 00:22:38,720

its actions and more about the

565

00:22:43,350 --> 00:22:41,200

vaccination some good advice heidi it's

566

00:22:47,190 --> 00:22:43,360

wonderful to have people up there in the

567

00:22:52,470 --> 00:22:50,230

yeah well someone had to do it

568

00:22:54,470 --> 00:22:52,480

no it's a beautiful area and

569

00:22:57,510 --> 00:22:54,480

we want to live here and we want to

570

00:23:00,230 --> 00:22:57,520

change change the way um it is up here

571

00:23:02,549 --> 00:23:00,240

so uh yeah please come and like our

572

00:23:05,750 --> 00:23:02,559

facebook page and um

573

00:23:07,669 --> 00:23:05,760

and uh tell everyone about us and um

574

00:23:09,669 --> 00:23:07,679

everyone's more than welcome to we've

575

00:23:11,430 --> 00:23:09,679

also got a contact form on our website

576

00:23:13,510 --> 00:23:11,440

page so if you've got any questions

577

00:23:15,110 --> 00:23:13,520

we're more than happy to uh to answer

578

00:23:17,029 --> 00:23:15,120

those questions as well

579

00:23:18,789 --> 00:23:17,039

fantastic well really nice to catch up

580

00:23:20,390 --> 00:23:18,799

with you heidi i hope we can

581

00:23:22,310 --> 00:23:20,400

bump into each other again at a

582

00:23:25,029 --> 00:23:22,320

convention or a skeptic camp or

583

00:23:27,190 --> 00:23:25,039

something in the not too distant future

584

00:23:29,110 --> 00:23:27,200

but for now a big thank you for all your

585

00:23:31,590 --> 00:23:29,120

work and the group up there

586

00:23:46,710 --> 00:23:31,600

heidi robertson thank you very much

587

00:23:51,350 --> 00:23:49,110

is an award-winning weekly science show

588

00:23:52,950 --> 00:23:51,360

in french hosted by a bunch of crazy

589

00:23:55,430 --> 00:23:52,960

enthusiasts

590

00:23:57,750 --> 00:23:55,440

we are convinced that the greatest ideas

591

00:23:59,750 --> 00:23:57,760

in science are quite easy to grasp as

592

00:24:02,310 --> 00:23:59,760

long as they are presented with passion

593

00:24:04,789 --> 00:24:02,320

using a vocabulary common to all curious

594

00:24:06,070 --> 00:24:04,799

minds whatever their academic background

595

00:24:08,149 --> 00:24:06,080

if any

596

00:24:09,510 --> 00:24:08,159

you don't understand french yet but it's

597

00:24:11,110 --> 00:24:09,520

never too late

598

00:24:12,870 --> 00:24:11,120

all our stories have a written

599

00:24:15,029 --> 00:24:12,880

transcript on the website and people

600

00:24:17,669 --> 00:24:15,039

from all around the world are using our

601  
00:24:20,310 --> 00:24:17,679  
content to learn molia's language

602  
00:24:22,990 --> 00:24:20,320  
our topics range from zero to infinity

603  
00:24:24,789 --> 00:24:23,000  
from evolution to artificial life from

604  
00:24:26,070 --> 00:24:24,799  
electromagnetism to the science of

605  
00:24:28,549 --> 00:24:26,080  
introverts

606  
00:24:32,149 --> 00:24:28,559  
we just love mathematics science

607  
00:24:33,909 --> 00:24:32,159  
critical thinking so do you want to join

608  
00:24:35,909 --> 00:24:33,919  
you can subscribe to the podcast for

609  
00:24:39,029 --> 00:24:35,919  
free from our website podcast science

610  
00:24:41,750 --> 00:24:39,039  
dot fm that's in one word you also find

611  
00:24:43,549 --> 00:24:41,760  
us on itunes and soundcloud see you soon

612  
00:24:59,029 --> 00:24:43,559  
hopefully at the

613  
00:25:03,029 --> 00:25:01,029

what we want is some more

614

00:25:11,590 --> 00:25:03,039

evidence please

615

00:25:11,600 --> 00:25:17,510

hello this is joe alabaster

616

00:25:21,350 --> 00:25:19,269

in news from the united kingdom this

617

00:25:24,549 --> 00:25:21,360

week a couple who made fake bomb

618

00:25:27,269 --> 00:25:24,559

detectors have been convicted of fraud

619

00:25:29,909 --> 00:25:27,279

sam and joan tree a couple in their 60s

620

00:25:32,549 --> 00:25:29,919

from bedfordshire constructed each alpha

621

00:25:35,190 --> 00:25:32,559

6 device from a plastic handle with a

622

00:25:37,029 --> 00:25:35,200

slot for a card and a metal aerial in

623

00:25:39,669 --> 00:25:37,039

their garden shed

624

00:25:42,390 --> 00:25:39,679

these components sourced from china only

625

00:25:44,710 --> 00:25:42,400

cost around 5 pounds a set but the trees

626  
00:25:48,230 --> 00:25:44,720  
sold the assembled devices for up to

627  
00:25:50,470 --> 00:25:48,240  
over two thousand dollars australian

628  
00:25:52,630 --> 00:25:50,480  
the trees and their distributor simon

629  
00:25:54,310 --> 00:25:52,640  
sherrard claimed that the alpha six

630  
00:25:56,549 --> 00:25:54,320  
molecular detector could detect

631  
00:25:59,430 --> 00:25:56,559  
explosives and drugs in quantities as

632  
00:26:02,230 --> 00:25:59,440  
tiny as 15 billionths of a gram at a

633  
00:26:04,630 --> 00:26:02,240  
range of 300 meters using magnetic

634  
00:26:06,789 --> 00:26:04,640  
molecular resonance and powered by an

635  
00:26:09,269 --> 00:26:06,799  
induced current from static electricity

636  
00:26:11,510 --> 00:26:09,279  
generated by the user's body

637  
00:26:13,590 --> 00:26:11,520  
the trees also claimed that the alpha 6

638  
00:26:15,269 --> 00:26:13,600

could detect missing persons and gained

639

00:26:17,190 --> 00:26:15,279

much publicity when they used the

640

00:26:19,830 --> 00:26:17,200

devices to look for missing child

641

00:26:21,990 --> 00:26:19,840

madeleine mccann

642

00:26:24,470 --> 00:26:22,000

the promotional literature compares the

643

00:26:27,350 --> 00:26:24,480

alpha 6 device's operating mechanism to

644

00:26:29,590 --> 00:26:27,360

that of an mri machine a large medical

645

00:26:31,909 --> 00:26:29,600

appliance with sizeable magnets high

646

00:26:35,029 --> 00:26:31,919

energy requirements and short operating

647

00:26:37,190 --> 00:26:35,039

time and claims that the alpha 6 a tiny

648

00:26:39,029 --> 00:26:37,200

little handheld plastic box powered only

649

00:26:41,510 --> 00:26:39,039

by the currents emanating from the human

650

00:26:45,110 --> 00:26:41,520

body is able to recognize molecules of

651  
00:26:47,029 --> 00:26:45,120  
substances at a 300 meter distance

652  
00:26:48,710 --> 00:26:47,039  
one might assume that the alpha six

653  
00:26:50,870 --> 00:26:48,720  
contained some complicated inner

654  
00:26:52,789 --> 00:26:50,880  
workings to accomplish this feat

655  
00:26:55,430 --> 00:26:52,799  
promotional material states that the

656  
00:26:57,110 --> 00:26:55,440  
handle contains an inductor a conductor

657  
00:26:59,750 --> 00:26:57,120  
and an oscillator

658  
00:27:01,590 --> 00:26:59,760  
quote the oscillator within the alpha 6

659  
00:27:03,750 --> 00:27:01,600  
is programmed to oscillate at the same

660  
00:27:06,470 --> 00:27:03,760  
frequency as that of the substance to be

661  
00:27:08,149 --> 00:27:06,480  
located end quote

662  
00:27:10,549 --> 00:27:08,159  
strangely enough when the trees were

663  
00:27:12,950 --> 00:27:10,559

investigated the majority of the plastic

664

00:27:15,590 --> 00:27:12,960

handles of assembled alpha 6 devices

665

00:27:18,710 --> 00:27:15,600

were found to be empty save a few which

666

00:27:21,029 --> 00:27:18,720

contained torn up scraps of paper

667

00:27:23,669 --> 00:27:21,039

the alpha 6 is set to detect specific

668

00:27:25,430 --> 00:27:23,679

substances by inserting a designated

669

00:27:26,710 --> 00:27:25,440

card into the plastic handle of the

670

00:27:28,310 --> 00:27:26,720

device

671

00:27:30,310 --> 00:27:28,320

these cards have apparently had the

672

00:27:31,750 --> 00:27:30,320

signature of a substance transferred

673

00:27:33,590 --> 00:27:31,760

onto them

674

00:27:36,149 --> 00:27:33,600

then the user holds the device by the

675

00:27:38,390 --> 00:27:36,159

plastic handle in front of them while

676  
00:27:40,470 --> 00:27:38,400  
the freely moving hinged metal aerial

677  
00:27:42,470 --> 00:27:40,480  
detects substances

678  
00:27:44,230 --> 00:27:42,480  
swinging left to right revealing the

679  
00:27:45,590 --> 00:27:44,240  
direction in which the substance is to

680  
00:27:47,750 --> 00:27:45,600  
be found

681  
00:27:48,870 --> 00:27:47,760  
the user walks and follows the swinging

682  
00:27:51,909 --> 00:27:48,880  
antenna

683  
00:27:54,230 --> 00:27:51,919  
is this starting to sound familiar yet

684  
00:27:56,870 --> 00:27:54,240  
the alpha 6 is working on the same

685  
00:27:58,789 --> 00:27:56,880  
principles as a dowsing rod the user

686  
00:28:01,190 --> 00:27:58,799  
experiences sensory cues from the

687  
00:28:03,269 --> 00:28:01,200  
swinging metal or rod caused by slight

688  
00:28:05,430 --> 00:28:03,279

movements made unconsciously by the user

689

00:28:07,430 --> 00:28:05,440

themselves or their surroundings and

690

00:28:08,950 --> 00:28:07,440

perceives these as the rod moving of its

691

00:28:11,110 --> 00:28:08,960

own accord

692

00:28:13,350 --> 00:28:11,120

between the expectations of the user

693

00:28:15,110 --> 00:28:13,360

perhaps influenced by the high financial

694

00:28:17,590 --> 00:28:15,120

and or emotional investment in the

695

00:28:19,830 --> 00:28:17,600

device combined with their trust in the

696

00:28:22,310 --> 00:28:19,840

vendor and their claims and a touch of

697

00:28:24,789 --> 00:28:22,320

confirmation bias people can perceive

698

00:28:26,789 --> 00:28:24,799

that dowsing rods work despite there

699

00:28:29,350 --> 00:28:26,799

being neither a proven mechanism by

700

00:28:32,149 --> 00:28:29,360

which this is possible nor a greater hit

701  
00:28:33,750 --> 00:28:32,159  
rate than that of chance

702  
00:28:35,909 --> 00:28:33,760  
there is a history of military and

703  
00:28:37,510 --> 00:28:35,919  
police forces investing in and applying

704  
00:28:39,830 --> 00:28:37,520  
dowsing devices

705  
00:28:41,830 --> 00:28:39,840  
during the vietnam war some u.s marines

706  
00:28:43,430 --> 00:28:41,840  
were using dowsing to attempt to locate

707  
00:28:46,070 --> 00:28:43,440  
weapons and tunnels

708  
00:28:47,990 --> 00:28:46,080  
in 1986 the norwegian army attempted to

709  
00:28:49,510 --> 00:28:48,000  
locate soldiers buried in an avalanche

710  
00:28:52,630 --> 00:28:49,520  
using dowsing

711  
00:28:54,870 --> 00:28:52,640  
and in 2007 the government of thailand's

712  
00:28:58,149 --> 00:28:54,880  
office of the narcotics control board

713  
00:29:00,630 --> 00:28:58,159

bought 15 alpha 6 devices reportedly at

714

00:29:03,110 --> 00:29:00,640

over thirteen thousand dollars apiece

715

00:29:05,669 --> 00:29:03,120

and thailand's interior ministry bought

716

00:29:08,230 --> 00:29:05,679

four hundred and seventy nine alpha six

717

00:29:10,549 --> 00:29:08,240

devices at twenty four thousand dollars

718

00:29:12,549 --> 00:29:10,559

apiece that's almost one and a half

719

00:29:14,549 --> 00:29:12,559

million dollars all up

720

00:29:17,110 --> 00:29:14,559

which they've implemented to combat drug

721

00:29:18,549 --> 00:29:17,120

trafficking and smuggling

722

00:29:20,710 --> 00:29:18,559

that's a lot of money for a small

723

00:29:22,470 --> 00:29:20,720

plastic box an aerial with no better

724

00:29:24,870 --> 00:29:22,480

detection rate than that of random

725

00:29:26,789 --> 00:29:24,880

chance and a false sense of security

726  
00:29:29,029 --> 00:29:26,799  
that narcotics were not being smuggled

727  
00:29:31,190 --> 00:29:29,039  
through their country

728  
00:29:32,950 --> 00:29:31,200  
that false sense of security is perhaps

729  
00:29:34,870 --> 00:29:32,960  
even more dire for those who purchased

730  
00:29:37,029 --> 00:29:34,880  
the alpha 6 devices for their other

731  
00:29:38,630 --> 00:29:37,039  
purported purpose detection of

732  
00:29:40,470 --> 00:29:38,640  
explosives

733  
00:29:42,470 --> 00:29:40,480  
when checkpoint operators in warthorn

734  
00:29:44,470 --> 00:29:42,480  
areas are relying on a scam device to

735  
00:29:47,990 --> 00:29:44,480  
detect car bombs and the like the

736  
00:29:50,230 --> 00:29:48,000  
results can and have been deadly

737  
00:29:52,630 --> 00:29:50,240  
the alpha six is not the only bobus bomb

738  
00:29:54,870 --> 00:29:52,640

detector that's been around recently

739

00:29:57,350 --> 00:29:54,880

similar devices were sold to iraq by

740

00:29:59,510 --> 00:29:57,360

british con man james mccormack who was

741

00:30:02,070 --> 00:29:59,520

sentenced to 10 years prison on three

742

00:30:05,669 --> 00:30:02,080

counts of fraud last year

743

00:30:07,590 --> 00:30:05,679

one of mccormack's devices the ade-101

744

00:30:10,549 --> 00:30:07,600

the handle of which looks near identical

745

00:30:13,990 --> 00:30:10,559

to the alpha 6 was in fact a rebranded

746

00:30:16,070 --> 00:30:14,000

novelty golf ball detector

747

00:30:18,630 --> 00:30:16,080

during their trial the trees maintained

748

00:30:20,710 --> 00:30:18,640

that the alpha 6 did work

749

00:30:23,830 --> 00:30:20,720

they've been convicted of fraud and are

750

00:30:25,669 --> 00:30:23,840

due to be sentenced next month

751  
00:30:27,350 --> 00:30:25,679  
australian listeners if you're not

752  
00:30:29,590 --> 00:30:27,360  
already familiar with it

753  
00:30:31,830 --> 00:30:29,600  
scam watch is an excellent website to

754  
00:30:34,070 --> 00:30:31,840  
visit with information for consumers and

755  
00:30:35,510 --> 00:30:34,080  
small business on how to recognize and

756  
00:30:37,510 --> 00:30:35,520  
avoid scams

757  
00:30:39,590 --> 00:30:37,520  
plus a database of common scams

758  
00:30:41,430 --> 00:30:39,600  
operating in australia

759  
00:30:43,750 --> 00:30:41,440  
run by the australian competition and

760  
00:30:45,830 --> 00:30:43,760  
consumer commission scam watch has a

761  
00:30:47,430 --> 00:30:45,840  
simple reporting function by which you

762  
00:30:49,669 --> 00:30:47,440  
can alert the a triple c to any

763  
00:30:51,029 --> 00:30:49,679

fraudulent items or practices you come

764

00:30:52,870 --> 00:30:51,039

across

765

00:30:59,110 --> 00:30:52,880

scam watchers url is

766

00:31:04,070 --> 00:31:01,269

this has been joe alabaster

767

00:31:21,430 --> 00:31:04,080

you can visit my blog evidence please at

768

00:31:25,909 --> 00:31:23,590

ad hominem begging the question factoid

769

00:31:27,830 --> 00:31:25,919

propagation false analogy false cause

770

00:31:29,510 --> 00:31:27,840

false dichotomy gibberish immunized

771

00:31:31,190 --> 00:31:29,520

hypothesis moral equivalence poisoning

772

00:31:33,830 --> 00:31:31,200

the wells implemented certitude stacking

773

00:31:35,669 --> 00:31:33,840

a deck and wtf are just some of the

774

00:31:38,389 --> 00:31:35,679

fallacies we provide real-life examples

775

00:31:39,750 --> 00:31:38,399

of in hunting humbug 101 a podcast about

776

00:31:40,470 --> 00:31:39,760

bad arguments

777

00:31:53,750 --> 00:31:40,480

check it out at

778

00:31:57,830 --> 00:31:56,149

welcome to a week in science from ros

779

00:32:01,190 --> 00:31:57,840

bringing you the science you need to

780

00:32:03,830 --> 00:32:01,200

know the human body is pretty weird like

781

00:32:09,830 --> 00:32:03,840

freaky weird here's some of our favorite

782

00:32:13,990 --> 00:32:11,669

the most amazing part of the human body

783

00:32:16,710 --> 00:32:14,000

is definitely the brain it is made up of

784

00:32:18,389 --> 00:32:16,720

around 86 billion neurons if you were to

785

00:32:20,789 --> 00:32:18,399

count them it would take around two and

786

00:32:23,509 --> 00:32:20,799

a half thousand years to run all those

787

00:32:25,750 --> 00:32:23,519

neurons the brain uses around 300 to 500

788

00:32:28,230 --> 00:32:25,760

calories of energy per day about the

789

00:32:30,230 --> 00:32:28,240

same as a 15 watt light bulb that all

790

00:32:32,149 --> 00:32:30,240

seems rather efficient to me

791

00:32:33,830 --> 00:32:32,159

the speed that nerves carry information

792

00:32:35,830 --> 00:32:33,840

to and from the brain depends on their

793

00:32:38,149 --> 00:32:35,840

thickness with thicker nerves carrying

794

00:32:40,149 --> 00:32:38,159

information faster than thinner the

795

00:32:43,269 --> 00:32:40,159

thickest nerves can carry information at

796

00:32:45,190 --> 00:32:43,279

around 400 kilometers per hour and with

797

00:32:47,509 --> 00:32:45,200

all that brain power and computational

798

00:32:49,990 --> 00:32:47,519

ability a study has shown that men think

799

00:32:52,230 --> 00:32:50,000

about sex on average about 34 times a

800

00:32:55,990 --> 00:32:52,240

day which is about the same we think

801  
00:32:57,990 --> 00:32:56,000  
about food or sleep

802  
00:32:59,750 --> 00:32:58,000  
circulatory system is pretty amazing as

803  
00:33:01,909 --> 00:32:59,760  
well if you were to take all of your

804  
00:33:03,110 --> 00:33:01,919  
blood vessels and lay them end to end

805  
00:33:05,190 --> 00:33:03,120  
you'd die

806  
00:33:07,430 --> 00:33:05,200  
but those blood vessels would also reach

807  
00:33:10,230 --> 00:33:07,440  
a hundred thousand kilometers that's

808  
00:33:12,149 --> 00:33:10,240  
around the world two and a half times

809  
00:33:14,070 --> 00:33:12,159  
the heart is the hardest working muscle

810  
00:33:16,789 --> 00:33:14,080  
in the body beating a hundred thousand

811  
00:33:19,509 --> 00:33:16,799  
times each day that adds up to three

812  
00:33:21,669 --> 00:33:19,519  
billion beats over a lifetime at rest

813  
00:33:24,310 --> 00:33:21,679

the heart pumps around 70 milliliters of

814

00:33:26,470 --> 00:33:24,320

blood each beat this means the heart

815

00:33:28,470 --> 00:33:26,480

pumps around 5 litres of blood every

816

00:33:30,870 --> 00:33:28,480

minute however this increases

817

00:33:33,350 --> 00:33:30,880

dramatically during exercise and for

818

00:33:35,269 --> 00:33:33,360

trained athletes even more the pressure

819

00:33:37,029 --> 00:33:35,279

at which it pumps the blood is also very

820

00:33:39,830 --> 00:33:37,039

impressive it is said that the heart

821

00:33:42,070 --> 00:33:39,840

could squirt blood around nine meters

822

00:33:44,789 --> 00:33:42,080

and now four fast facts about the weird

823

00:33:49,029 --> 00:33:46,389

fingernails grow around three

824

00:33:51,509 --> 00:33:49,039

millimeters per month that's about three

825

00:33:54,470 --> 00:33:51,519

times faster than toenails hair on the

826

00:33:56,950 --> 00:33:54,480

other hand grows very quickly about 1.25

827

00:33:59,190 --> 00:33:56,960

centimeters each month people who are

828

00:34:01,590 --> 00:33:59,200

deaf due to inner ear damage don't get

829

00:34:03,350 --> 00:34:01,600

seasick and just like your fingerprints

830

00:34:06,070 --> 00:34:03,360

your tongue's design is completely

831

00:34:08,149 --> 00:34:06,080

unique to you that's it for this week in

832

00:34:10,470 --> 00:34:08,159

science if your brain is intrigued by

833

00:34:13,669 --> 00:34:10,480

the weird human body go to the rl's

834

00:34:14,710 --> 00:34:13,679

website riaux.org

835

00:34:17,349 --> 00:34:14,720

a u

836

00:34:19,669 --> 00:34:17,359

follow us on twitter at rios and like us

837

00:34:32,470 --> 00:34:19,679

on facebook i'm ben lewis and we'll

838

00:34:39,990 --> 00:34:35,589

this is the cosmos

839

00:34:42,550 --> 00:34:40,000

a network of a hundred billion galaxies

840

00:35:01,750 --> 00:34:42,560

and it's the greatest story science has

841

00:35:06,230 --> 00:35:03,910

life on earth is one of the unsolved

842

00:35:07,349 --> 00:35:06,240

mysteries of science

843

00:35:08,470 --> 00:35:07,359

come with me

844

00:35:13,910 --> 00:35:08,480

our journey

845

00:35:18,790 --> 00:35:16,150

australian listeners is your chance to

846

00:35:22,230 --> 00:35:18,800

own your very own copy of cosmos a

847

00:35:23,589 --> 00:35:22,240

space-time odyssey on dvd courtesy of

848

00:35:25,990 --> 00:35:23,599

our good friends at the national

849

00:35:28,150 --> 00:35:26,000

geographic channel in australia three

850

00:35:31,510 --> 00:35:28,160

decades after the debut of the original

851  
00:35:32,950 --> 00:35:31,520  
cosmos it is time once again to set sail

852  
00:35:35,430 --> 00:35:32,960  
for the stars

853  
00:35:37,829 --> 00:35:35,440  
hosted by renowned astrophysicist neil

854  
00:35:40,310 --> 00:35:37,839  
degrasse tyson the series will explore

855  
00:35:42,950 --> 00:35:40,320  
how we discovered the laws of nature and

856  
00:35:45,670 --> 00:35:42,960  
found our coordinates in space and time

857  
00:35:47,990 --> 00:35:45,680  
it will bring to life never before told

858  
00:35:50,630 --> 00:35:48,000  
stories of the heroic quest for

859  
00:35:53,349 --> 00:35:50,640  
knowledge and transports viewers to new

860  
00:35:55,270 --> 00:35:53,359  
worlds and across the universe for a

861  
00:35:57,190 --> 00:35:55,280  
vision of the cosmos

862  
00:35:58,790 --> 00:35:57,200  
on the grander scale

863  
00:36:01,430 --> 00:35:58,800

well that's a good blurb

864

00:36:03,030 --> 00:36:01,440

all 13 episodes of the new cosmos series

865

00:36:07,030 --> 00:36:03,040

on e4

866

00:36:09,430 --> 00:36:07,040

dvd disc set can be yours australian

867

00:36:10,950 --> 00:36:09,440

listeners this is what you have to do

868

00:36:13,109 --> 00:36:10,960

using the theme

869

00:36:15,430 --> 00:36:13,119

billions and billions

870

00:36:19,510 --> 00:36:15,440

send us a photograph

871

00:36:20,910 --> 00:36:19,520

send it to cosmos

872

00:36:24,950 --> 00:36:20,920

at

873

00:36:26,630 --> 00:36:24,960

don't make it too big please nothing

874

00:36:28,150 --> 00:36:26,640

like five megabytes see if you can sort

875

00:36:30,069 --> 00:36:28,160

of crunch it down to

876  
00:36:31,109 --> 00:36:30,079  
no more than one

877  
00:36:32,550 --> 00:36:31,119  
for a

878  
00:36:35,349 --> 00:36:32,560  
convenience sake

879  
00:36:38,150 --> 00:36:35,359  
we're going to be posting those on the

880  
00:36:41,910 --> 00:36:38,160  
skeptic zone facebook

881  
00:36:43,829 --> 00:36:41,920  
group page so there's your mission

882  
00:36:46,550 --> 00:36:43,839  
should you choose to accept it

883  
00:36:49,030 --> 00:36:46,560  
send us a photograph

884  
00:36:52,390 --> 00:36:49,040  
with the theme in mind billions and

885  
00:36:55,190 --> 00:36:52,400  
billions and the judges will award the

886  
00:36:58,470 --> 00:36:55,200  
dvd to what they consider to be the most

887  
00:37:00,870 --> 00:36:58,480  
creative photograph sent in please

888  
00:37:02,950 --> 00:37:00,880

include your full name and

889

00:37:05,829 --> 00:37:02,960

your city or town

890

00:37:07,670 --> 00:37:05,839

so there it is the new cosmos dvd set

891

00:37:09,270 --> 00:37:07,680

competition

892

00:37:11,270 --> 00:37:09,280

i'll leave you with a little clip from

893

00:37:12,470 --> 00:37:11,280

the new cosmos series with neil degrasse

894

00:37:13,829 --> 00:37:12,480

tyson

895

00:37:17,829 --> 00:37:13,839

and

896

00:37:19,510 --> 00:37:17,839

carl sagan it's inspiring stuff

897

00:37:21,030 --> 00:37:19,520

carl sagan was a member of voyageur's

898

00:37:23,190 --> 00:37:21,040

imaging team

899

00:37:25,750 --> 00:37:23,200

and it was his idea that voyager take

900

00:37:28,150 --> 00:37:25,760

one last picture

901  
00:37:30,470 --> 00:37:28,160  
a generation before an astronaut on the

902  
00:37:32,630 --> 00:37:30,480  
last apollo flight to the moon had taken

903  
00:37:33,829 --> 00:37:32,640  
a picture of the whole earth

904  
00:37:36,790 --> 00:37:33,839  
the planet

905  
00:37:39,750 --> 00:37:36,800  
as a world without borders it became an

906  
00:37:41,910 --> 00:37:39,760  
icon of a new consciousness

907  
00:37:43,430 --> 00:37:41,920  
carl realized the next step in this

908  
00:37:46,150 --> 00:37:43,440  
process

909  
00:37:47,990 --> 00:37:46,160  
he convinced nasa to turn the voyager 1

910  
00:37:50,870 --> 00:37:48,000  
camera back towards earth when the

911  
00:37:52,710 --> 00:37:50,880  
spacecraft went beyond neptune for one

912  
00:37:54,550 --> 00:37:52,720  
last look homeward

913  
00:38:03,030 --> 00:37:54,560

at what he called

914

00:38:06,069 --> 00:38:04,550

that's here

915

00:38:07,750 --> 00:38:06,079

that's home

916

00:38:09,030 --> 00:38:07,760

that's us

917

00:38:10,790 --> 00:38:09,040

on it

918

00:38:12,390 --> 00:38:10,800

everyone you love

919

00:38:15,190 --> 00:38:12,400

everyone you know

920

00:38:17,190 --> 00:38:15,200

everyone you ever heard of every human

921

00:38:19,670 --> 00:38:17,200

being who ever was

922

00:38:23,270 --> 00:38:19,680

lived out their lives

923

00:38:25,430 --> 00:38:23,280

the aggregate of our joy and suffering

924

00:38:28,150 --> 00:38:25,440

thousands of confident religions

925

00:38:30,470 --> 00:38:28,160

ideologies and economic doctrines

926  
00:38:33,190 --> 00:38:30,480  
every hunter and forager

927  
00:38:35,589 --> 00:38:33,200  
every hero and coward every creator and

928  
00:38:37,829 --> 00:38:35,599  
destroyer of civilization

929  
00:38:40,390 --> 00:38:37,839  
every king and peasant

930  
00:38:41,670 --> 00:38:40,400  
every young couple in love every mother

931  
00:38:43,030 --> 00:38:41,680  
and father

932  
00:38:45,510 --> 00:38:43,040  
hopeful child

933  
00:38:47,910 --> 00:38:45,520  
inventor and explorer

934  
00:38:52,550 --> 00:38:47,920  
every teacher of morals every corrupt

935  
00:38:55,190 --> 00:38:52,560  
politician every superstar every supreme

936  
00:38:57,270 --> 00:38:55,200  
leader every saint and sinner in the

937  
00:38:58,870 --> 00:38:57,280  
history of our species

938  
00:39:00,710 --> 00:38:58,880

lived there

939

00:39:02,310 --> 00:39:00,720

on a motive dust

940

00:39:04,069 --> 00:39:02,320

suspended

941

00:39:05,270 --> 00:39:04,079

in a sunbeam

942

00:39:08,390 --> 00:39:05,280

the earth

943

00:39:09,829 --> 00:39:08,400

is a very small stage

944

00:39:12,470 --> 00:39:09,839

in a fast

945

00:39:13,270 --> 00:39:12,480

cosmic arena

946

00:39:15,430 --> 00:39:13,280

think

947

00:39:17,510 --> 00:39:15,440

of the rivers of blood

948

00:39:19,349 --> 00:39:17,520

spilled by all those generals and

949

00:39:21,750 --> 00:39:19,359

emperors

950

00:39:24,630 --> 00:39:21,760

so that in glory and triumph they could

951  
00:39:26,230 --> 00:39:24,640  
become the momentary masters

952  
00:39:28,230 --> 00:39:26,240  
of a fraction

953  
00:39:31,030 --> 00:39:28,240  
of a dot

954  
00:39:33,190 --> 00:39:31,040  
think of the endless cruelties visited

955  
00:39:34,470 --> 00:39:33,200  
by the inhabitants of one corner of this

956  
00:39:36,470 --> 00:39:34,480  
pixel

957  
00:39:37,829 --> 00:39:36,480  
on the scarcely distinguishable

958  
00:39:39,510 --> 00:39:37,839  
inhabitants

959  
00:39:42,550 --> 00:39:39,520  
of some other corner

960  
00:39:45,510 --> 00:39:42,560  
how frequent their misunderstandings

961  
00:39:49,190 --> 00:39:45,520  
how eager they are to kill one another

962  
00:39:51,670 --> 00:39:49,200  
how fervent their hatreds

963  
00:39:54,710 --> 00:39:51,680

our posturings

964

00:39:56,790 --> 00:39:54,720

our imagined self-importance the

965

00:39:58,710 --> 00:39:56,800

delusion that we have some privileged

966

00:40:00,150 --> 00:39:58,720

position in the universe

967

00:40:03,910 --> 00:40:00,160

are challenged

968

00:40:05,829 --> 00:40:03,920

by this point of pale light

969

00:40:07,910 --> 00:40:05,839

our planet

970

00:40:11,750 --> 00:40:07,920

is a lonely speck

971

00:40:14,630 --> 00:40:11,760

in the great enveloping cosmic dark

972

00:40:17,270 --> 00:40:14,640

in our obscurity

973

00:40:18,870 --> 00:40:17,280

in all this vastness

974

00:40:21,109 --> 00:40:18,880

there is no hint

975

00:40:24,870 --> 00:40:21,119

that help will come from elsewhere

976  
00:40:27,349 --> 00:40:24,880  
to save us from ourselves the earth is

977  
00:40:28,710 --> 00:40:27,359  
the only world known so far to harbor

978  
00:40:30,950 --> 00:40:28,720  
life

979  
00:40:32,150 --> 00:40:30,960  
there is nowhere else at least in the

980  
00:40:35,030 --> 00:40:32,160  
near future

981  
00:40:36,829 --> 00:40:35,040  
to which our species could migrate

982  
00:40:39,750 --> 00:40:36,839  
visit

983  
00:40:40,790 --> 00:40:39,760  
yes settle

984  
00:40:42,069 --> 00:40:40,800  
not yet

985  
00:40:43,670 --> 00:40:42,079  
like it or not

986  
00:40:47,109 --> 00:40:43,680  
for the moment

987  
00:40:49,190 --> 00:40:47,119  
the earth is where we make our stand

988  
00:40:50,230 --> 00:40:49,200

it has been said that astronomy is a

989

00:40:51,030 --> 00:40:50,240

humbling

990

00:40:54,069 --> 00:40:51,040

and

991

00:40:56,710 --> 00:40:54,079

character building experience

992

00:40:59,589 --> 00:40:56,720

there is perhaps no better demonstration

993

00:41:03,190 --> 00:40:59,599

of the folly of human conceits

994

00:41:04,390 --> 00:41:03,200

than this distant image

995

00:41:06,870 --> 00:41:04,400

to me

996

00:41:09,430 --> 00:41:06,880

it underscores our responsibility to

997

00:41:11,030 --> 00:41:09,440

deal more kindly with one another

998

00:41:12,309 --> 00:41:11,040

and to preserve

999

00:41:14,069 --> 00:41:12,319

and cherish

1000

00:41:15,589 --> 00:41:14,079

the pale blue dot

1001

00:41:41,990 --> 00:41:15,599

the only home

1002

00:41:51,190 --> 00:41:44,790

let's all take this with a grain of salt

1003

00:41:55,349 --> 00:41:53,510

i'm here with rhys morgan reese for a

1004

00:41:56,630 --> 00:41:55,359

lot of skeptics needs no introduction

1005

00:41:58,870 --> 00:41:56,640

but maybe

1006

00:42:01,270 --> 00:41:58,880

maybe you can tell us those are the few

1007

00:42:03,829 --> 00:42:01,280

listeners who do not know who you are

1008

00:42:05,510 --> 00:42:03,839

do you want to tell them uh

1009

00:42:07,750 --> 00:42:05,520

why people know about you

1010

00:42:08,870 --> 00:42:07,760

um yeah sure a few years ago i was

1011

00:42:10,950 --> 00:42:08,880

involved in

1012

00:42:12,790 --> 00:42:10,960

talking and debunking a miracle mineral

1013

00:42:14,470 --> 00:42:12,800

solution um

1014

00:42:15,910 --> 00:42:14,480

that was the product's name

1015

00:42:18,309 --> 00:42:15,920

it was an industrial bleaching agent

1016

00:42:21,589 --> 00:42:18,319

being promoted as a treatment for

1017

00:42:24,790 --> 00:42:21,599

all sorts of illnesses cancer crohn's

1018

00:42:26,630 --> 00:42:24,800

arthritis tuberculosis and um i got

1019

00:42:28,150 --> 00:42:26,640

involved with

1020

00:42:29,589 --> 00:42:28,160

debunking that and i got the james

1021

00:42:31,190 --> 00:42:29,599

ramsey education

1022

00:42:33,270 --> 00:42:31,200

educational foundation award for

1023

00:42:35,829 --> 00:42:33,280

outstanding contribution to grassroots

1024

00:42:38,230 --> 00:42:35,839

skepticism for that um at town london in

1025

00:42:40,710 --> 00:42:38,240

2010 and then after so maybe we should

1026

00:42:43,190 --> 00:42:40,720

just point out town london 2010 you're

1027

00:42:45,750 --> 00:42:43,200

now almost 20 right yes so you were i

1028

00:42:47,430 --> 00:42:45,760

was 15 16 when yeah that happened very

1029

00:42:49,190 --> 00:42:47,440

good um and then

1030

00:42:51,829 --> 00:42:49,200

a couple a year later or so i got

1031

00:42:53,270 --> 00:42:51,839

involved with um i blogged about a

1032

00:42:55,030 --> 00:42:53,280

clinic called the bazinski clinic in

1033

00:42:56,390 --> 00:42:55,040

america who are a cancer clinic who

1034

00:42:57,910 --> 00:42:56,400

offer a treatment called antenna

1035

00:42:59,589 --> 00:42:57,920

plastons

1036

00:43:01,270 --> 00:42:59,599

there there's no scientific evidence

1037

00:43:04,150 --> 00:43:01,280

that they work or are effective in the

1038

00:43:04,950 --> 00:43:04,160

treatment of cancer but uh dr bazinski

1039

00:43:08,630 --> 00:43:04,960

will

1040

00:43:10,550 --> 00:43:08,640

treatment or cure and people pay

1041

00:43:12,630 --> 00:43:10,560

hundreds of thousands of dollars to go

1042

00:43:15,109 --> 00:43:12,640

over to his clinic to get this treatment

1043

00:43:17,510 --> 00:43:15,119

so i blogged about this i said this is

1044

00:43:20,630 --> 00:43:17,520

wrong this shouldn't be happening um and

1045

00:43:21,349 --> 00:43:20,640

i was almost sued by him for it he hired

1046

00:43:51,829 --> 00:43:21,359

a

1047

00:43:55,349 --> 00:43:51,839

you come to

1048

00:43:58,230 --> 00:43:55,359

something like this uh qed a skeptical

1049

00:44:00,470 --> 00:43:58,240

conference and uh you're a bit of a

1050

00:44:02,630 --> 00:44:00,480

local celebrity aren't you it is a bit

1051  
00:44:04,150 --> 00:44:02,640  
different from my normal life because

1052  
00:44:05,910 --> 00:44:04,160  
you know when i walk around cardiff my

1053  
00:44:07,270 --> 00:44:05,920  
hometown you know nobody pays any

1054  
00:44:09,670 --> 00:44:07,280  
attention to me really except my friends

1055  
00:44:11,109 --> 00:44:09,680  
and then um when i come to qed i have

1056  
00:44:13,270 --> 00:44:11,119  
people come up to me and just be like oh

1057  
00:44:15,510 --> 00:44:13,280  
hi rhys hi recent it's quite odd

1058  
00:44:17,589 --> 00:44:15,520  
especially when you have people that you

1059  
00:44:19,430 --> 00:44:17,599  
you don't know but they know you it

1060  
00:44:21,270 --> 00:44:19,440  
could be quite quite

1061  
00:44:23,190 --> 00:44:21,280  
like me for example

1062  
00:44:26,390 --> 00:44:23,200  
okay and then they drag you to a back

1063  
00:44:29,589 --> 00:44:28,309

so so um

1064

00:44:31,829 --> 00:44:29,599

first of all obviously the story with

1065

00:44:33,430 --> 00:44:31,839

brazilian brzezinski actually um it

1066

00:44:34,829 --> 00:44:33,440

hasn't ended yet but it's it's

1067

00:44:37,270 --> 00:44:34,839

definitely going in the right direction

1068

00:44:39,030 --> 00:44:37,280

there's even just just recently there's

1069

00:44:40,790 --> 00:44:39,040

been a lot of news about he's basically

1070

00:44:43,349 --> 00:44:40,800

not allowed to provide that treatment

1071

00:44:45,510 --> 00:44:43,359

anymore yeah indeed so so this obviously

1072

00:44:49,109 --> 00:44:45,520

has led to significant

1073

00:44:50,390 --> 00:44:49,119

um significant positive changes now

1074

00:44:53,510 --> 00:44:50,400

you had to

1075

00:44:55,750 --> 00:44:53,520

uh show quite a bit of strength i would

1076

00:44:57,829 --> 00:44:55,760

say uh at the time you mean you were

1077

00:44:59,990 --> 00:44:57,839

threatened being with being sued so so

1078

00:45:01,910 --> 00:45:00,000

can you tell us about that and how you

1079

00:45:04,150 --> 00:45:01,920

felt and how you actually dealt with it

1080

00:45:06,710 --> 00:45:04,160

yeah it was it was uh

1081

00:45:08,630 --> 00:45:06,720

it was awkward at the time because i was

1082

00:45:10,870 --> 00:45:08,640

doing my a levels for the first time and

1083

00:45:12,790 --> 00:45:10,880

i was stressed because of those and then

1084

00:45:14,230 --> 00:45:12,800

i received an email from mark stevens

1085

00:45:16,230 --> 00:45:14,240

threatening to sue me for libel if i

1086

00:45:17,910 --> 00:45:16,240

didn't take the blog post down and given

1087

00:45:19,589 --> 00:45:17,920

the state of the uk's libel laws at the

1088

00:45:20,550 --> 00:45:19,599

time we hadn't had any sort of libel

1089

00:45:21,829 --> 00:45:20,560

reform

1090

00:45:24,309 --> 00:45:21,839

um

1091

00:45:26,069 --> 00:45:24,319

being made into law yet so

1092

00:45:27,910 --> 00:45:26,079

i was quite quite nervous you know at

1093

00:45:29,349 --> 00:45:27,920

first i thought well i'm on the right

1094

00:45:32,150 --> 00:45:29,359

side here you know i've definitely told

1095

00:45:33,990 --> 00:45:32,160

the truth so i've not libeled him but at

1096

00:45:35,990 --> 00:45:34,000

the same time i knew the costs of a

1097

00:45:37,829 --> 00:45:36,000

liable case and the stress of a libel

1098

00:45:41,109 --> 00:45:37,839

case regardless of whether you've said

1099

00:45:42,870 --> 00:45:41,119

the truth or not uh extortionate so it

1100

00:45:44,870 --> 00:45:42,880

was quite stressful um but then i was

1101  
00:45:47,910 --> 00:45:44,880  
able to get in contact with simon singh

1102  
00:45:50,390 --> 00:45:47,920  
who um got in touch with robert dugans

1103  
00:45:51,589 --> 00:45:50,400  
and they both helped me um

1104  
00:45:53,109 --> 00:45:51,599  
sort of

1105  
00:45:54,790 --> 00:45:53,119  
make sure that

1106  
00:45:56,630 --> 00:45:54,800  
robert stevens is uh simon singh's

1107  
00:45:58,309 --> 00:45:56,640  
lawyer or solicitor

1108  
00:46:00,309 --> 00:45:58,319  
and he helped him throughout the british

1109  
00:46:01,349 --> 00:46:00,319  
chiropractic association versus singh

1110  
00:46:04,550 --> 00:46:01,359  
case

1111  
00:46:06,309 --> 00:46:04,560  
um and they both helped write emails to

1112  
00:46:09,109 --> 00:46:06,319  
send back to mark stevens and write a

1113  
00:46:10,230 --> 00:46:09,119

new blog post detailing exactly what had

1114

00:46:11,349 --> 00:46:10,240  
happened you know how i'd been

1115

00:46:13,109 --> 00:46:11,359  
threatened

1116

00:46:15,750 --> 00:46:13,119  
um so that i was able to put that up

1117

00:46:17,109 --> 00:46:15,760  
later on after it was established that

1118

00:46:18,230 --> 00:46:17,119  
they weren't they weren't going to sue

1119

00:46:20,230 --> 00:46:18,240  
me

1120

00:46:22,390 --> 00:46:20,240  
okay so

1121

00:46:24,550 --> 00:46:22,400  
how long was all of that this this all

1122

00:46:26,470 --> 00:46:24,560  
took place over about uh the space of

1123

00:46:28,309 --> 00:46:26,480  
about a month i would say um it was the

1124

00:46:30,069 --> 00:46:28,319  
start of november um that i got the

1125

00:46:33,349 --> 00:46:30,079  
first email and then i had a back and

1126

00:46:35,430 --> 00:46:33,359

forth between mark stevens and myself um

1127

00:46:36,470 --> 00:46:35,440

with a lot of input from robert dugans

1128

00:46:39,190 --> 00:46:36,480

and simon

1129

00:46:40,710 --> 00:46:39,200

um to help write the emails back

1130

00:46:42,069 --> 00:46:40,720

and then eventually they suggested they

1131

00:46:44,069 --> 00:46:42,079

were going to get another law firm

1132

00:46:45,030 --> 00:46:44,079

involved as in the business clinic said

1133

00:46:47,109 --> 00:46:45,040

they were going to get another law firm

1134

00:46:48,470 --> 00:46:47,119

involved and that fizzled away into

1135

00:46:50,390 --> 00:46:48,480

nothing thankfully

1136

00:46:52,550 --> 00:46:50,400

i see and um what have you been doing

1137

00:46:53,990 --> 00:46:52,560

since i mean it's been it's been quite a

1138

00:46:55,829 --> 00:46:54,000

while i'm assuming that you've been

1139

00:46:58,790 --> 00:46:55,839

quite active in the meantime yeah um

1140

00:47:01,990 --> 00:46:58,800

sort of helping in the background to

1141

00:47:04,309 --> 00:47:02,000

against the bezinski case still um like

1142

00:47:05,910 --> 00:47:04,319

there are other skeptics in the us as

1143

00:47:08,550 --> 00:47:05,920

well such as bob blaskovich who've

1144

00:47:11,030 --> 00:47:08,560

really taken the lead in um

1145

00:47:12,470 --> 00:47:11,040

sort of the public information side of

1146

00:47:13,990 --> 00:47:12,480

getting the bazinski story across he

1147

00:47:15,829 --> 00:47:14,000

runs um

1148

00:47:17,910 --> 00:47:15,839

a group called skeptics

1149

00:47:20,470 --> 00:47:17,920

for the protection of cancer patients

1150

00:47:21,750 --> 00:47:20,480

and um so i've sort of been helping and

1151

00:47:24,790 --> 00:47:21,760

they have a couple of websites right

1152

00:47:26,150 --> 00:47:24,800

there in texas houston kansas yeah the

1153

00:47:27,109 --> 00:47:26,160

houston cancer quack and that's a you

1154

00:47:29,109 --> 00:47:27,119

know it's a brilliant resource of

1155

00:47:29,829 --> 00:47:29,119

patients who the other and also the

1156

00:47:34,230 --> 00:47:29,839

other

1157

00:47:36,309 --> 00:47:34,240

yeah that's the one yeah yeah and they

1158

00:47:37,750 --> 00:47:36,319

on that you can find details of uh

1159

00:47:39,589 --> 00:47:37,760

patients who've gone to pozinski and

1160

00:47:42,390 --> 00:47:39,599

then have not been successful which is

1161

00:47:44,550 --> 00:47:42,400

the majority of them um so you can find

1162

00:47:46,630 --> 00:47:44,560

all their stories on that website um but

1163

00:47:48,630 --> 00:47:46,640

other campaigns that he's helped you

1164

00:47:50,309 --> 00:47:48,640

know he's run have been like letter

1165

00:47:53,030 --> 00:47:50,319

writing campaigns to

1166

00:47:54,230 --> 00:47:53,040

senators in the u.s um and so i've been

1167

00:47:56,150 --> 00:47:54,240

sort of

1168

00:47:57,750 --> 00:47:56,160

not taking a uh

1169

00:47:59,349 --> 00:47:57,760

a disinterest in it but sort of taking

1170

00:48:01,750 --> 00:47:59,359

more of a back seat while

1171

00:48:02,550 --> 00:48:01,760

bob's been continuing the work

1172

00:48:05,990 --> 00:48:02,560

so

1173

00:48:07,670 --> 00:48:06,000

slightly recently was multi-level

1174

00:48:08,870 --> 00:48:07,680

marketing but some of my friends got

1175

00:48:11,109 --> 00:48:08,880

involved in a multi-level marketing

1176

00:48:14,870 --> 00:48:11,119

scheme um and so i decided to write

1177

00:48:15,829 --> 00:48:14,880

about um how things like herbalife and

1178

00:48:16,870 --> 00:48:15,839

um

1179

00:48:18,390 --> 00:48:16,880

all these other multiple marketing

1180

00:48:21,430 --> 00:48:18,400

schemes aren't actually you know the

1181

00:48:22,549 --> 00:48:21,440

savior for people you know that they're

1182

00:48:24,549 --> 00:48:22,559

not going to actually make you into

1183

00:48:26,309 --> 00:48:24,559

multi-millionaires unless you're you

1184

00:48:28,470 --> 00:48:26,319

know one in a million or something

1185

00:48:30,870 --> 00:48:28,480

yeah well yeah it's not just that they

1186

00:48:33,349 --> 00:48:30,880

won't help you become a millionaire that

1187

00:48:35,109 --> 00:48:33,359

they're unlikely to

1188

00:48:38,230 --> 00:48:35,119

make you any profit most people just

1189

00:48:40,950 --> 00:48:38,240

make a few dollars at most per month on

1190

00:48:42,549 --> 00:48:40,960

average or you might even end up with uh

1191

00:48:43,829 --> 00:48:42,559

debt because you've bought a significant

1192

00:48:45,430 --> 00:48:43,839

amount of stock that they've promised

1193

00:48:48,309 --> 00:48:45,440

you'd be able to sell and you've not

1194

00:48:50,950 --> 00:48:48,319

been able to sell it and you know yes

1195

00:48:52,230 --> 00:48:50,960

it's a bit of a scam yeah so so this is

1196

00:48:53,990 --> 00:48:52,240

your focus at the moment from a

1197

00:48:56,230 --> 00:48:54,000

skeptical perspective yeah i'd like to

1198

00:48:57,829 --> 00:48:56,240

do more on um sort of like taking down

1199

00:48:59,990 --> 00:48:57,839

multi-level marketing schemes it's a bit

1200

00:49:02,710 --> 00:49:00,000

bit of a big deal because they're you

1201  
00:49:04,390 --> 00:49:02,720  
know you see herbalife on rugby sponsor

1202  
00:49:06,230 --> 00:49:04,400  
shirts and all that sort of thing so

1203  
00:49:09,030 --> 00:49:06,240  
they're probably even more or even

1204  
00:49:11,589 --> 00:49:09,040  
bigger than brzezinski at the moment and

1205  
00:49:13,589 --> 00:49:11,599  
there are so many of them that it's

1206  
00:49:15,030 --> 00:49:13,599  
it'd be an interesting challenge to take

1207  
00:49:17,030 --> 00:49:15,040  
on

1208  
00:49:19,030 --> 00:49:17,040  
very good uh reese thank you very much

1209  
00:49:21,030 --> 00:49:19,040  
for for everything you've done for for

1210  
00:49:35,109 --> 00:49:21,040  
skepticism and for this interview thank

1211  
00:49:38,790 --> 00:49:36,710  
hey this is jay novella from the

1212  
00:49:40,390 --> 00:49:38,800  
skeptic's guide to the universe podcast

1213  
00:49:42,150 --> 00:49:40,400

did you know that there are thousands of

1214

00:49:44,630 --> 00:49:42,160

skeptical reports interviews and

1215

00:49:49,510 --> 00:49:44,640

investigations going back to 1981 free

1216

00:49:53,190 --> 00:49:51,270

click the publications link and enjoy

1217

00:49:55,270 --> 00:49:53,200

almost every back issue of the skeptic

1218

00:49:57,030 --> 00:49:55,280

the journal from australian skeptics you

1219

00:49:59,190 --> 00:49:57,040

can also subscribe online and get the

1220

00:50:01,349 --> 00:49:59,200

latest digital or hard copy of this the

1221

00:50:03,549 --> 00:50:01,359

world's second oldest skeptical magazine

1222

00:50:05,430 --> 00:50:03,559

that's

1223

00:50:23,589 --> 00:50:05,440

[www.skeptics.com.au](http://www.skeptics.com.au) or just google

1224

00:50:27,109 --> 00:50:25,430

thank you for listening to the skeptic

1225

00:50:30,309 --> 00:50:27,119

zone and as i mentioned at the top of

1226

00:50:33,030 --> 00:50:30,319

the show uh james randy is coming out to

1227

00:50:35,670 --> 00:50:33,040

australia in december to do a series of

1228

00:50:38,150 --> 00:50:35,680

talks in perth brisbane melbourne sydney

1229

00:50:40,470 --> 00:50:38,160

i i think i've got that correct look i'm

1230

00:50:42,870 --> 00:50:40,480

going to be having a chat to james well

1231

00:50:44,230 --> 00:50:42,880

in the coming weeks or months about this

1232

00:50:46,150 --> 00:50:44,240

and i'll bring you that on the skeptic

1233

00:50:48,309 --> 00:50:46,160

zone but keep an eye out for that an

1234

00:50:49,589 --> 00:50:48,319

evening of james randy are they going to

1235

00:50:51,990 --> 00:50:49,599

be showing the

1236

00:50:53,910 --> 00:50:52,000

honest liar the documentary about james

1237

00:50:55,430 --> 00:50:53,920

randy but i'll try to bring you more

1238

00:50:58,309 --> 00:50:55,440

information

1239

00:51:01,190 --> 00:50:58,319

about that as it comes to hand always

1240

00:51:02,870 --> 00:51:01,200

good to see james randy in australia

1241

00:51:04,470 --> 00:51:02,880

james randy in australia and that's the

1242

00:51:06,510 --> 00:51:04,480

name of the documentary that was made

1243

00:51:09,109 --> 00:51:06,520

way back in 1981

1244

00:51:10,549 --> 00:51:09,119

1981 all about james randy doing water

1245

00:51:11,750 --> 00:51:10,559

divining tests

1246

00:51:14,710 --> 00:51:11,760

google it

1247

00:51:15,829 --> 00:51:14,720

james randy in australia it's a

1248

00:51:19,589 --> 00:51:15,839

wonderful

1249

00:51:21,750 --> 00:51:19,599

documentary about 45 minutes i guess

1250

00:51:23,510 --> 00:51:21,760

all about water divining

1251  
00:51:25,270 --> 00:51:23,520  
and that helped kick off australian

1252  
00:51:27,030 --> 00:51:25,280  
skeptics all those years ago

1253  
00:51:28,710 --> 00:51:27,040  
but for now this is oh all right all

1254  
00:51:30,230 --> 00:51:28,720  
right all those people who write in to

1255  
00:51:33,030 --> 00:51:30,240  
me and ask me to do this i'll do it

1256  
00:51:38,069 --> 00:51:36,069  
i've got my ten sided die here

1257  
00:51:40,549 --> 00:51:38,079  
i think i've got this at dragon con

1258  
00:51:43,190 --> 00:51:40,559  
sort of red and

1259  
00:51:44,069 --> 00:51:43,200  
wine colored red wine colored bright red

1260  
00:51:45,510 --> 00:51:44,079  
anyway

1261  
00:51:48,390 --> 00:51:45,520  
ten sided

1262  
00:51:51,750 --> 00:51:48,400  
numbers from one to ten

1263  
00:51:53,430 --> 00:51:51,760

or zero to nine we'll call it one to ten

1264

00:51:55,589 --> 00:51:53,440

give this a shake

1265

00:51:58,710 --> 00:51:55,599

so use your uh psychic powers folks

1266

00:52:00,630 --> 00:51:58,720

think now look into the future

1267

00:52:02,790 --> 00:52:00,640

will it roll a one two three four five

1268

00:52:09,030 --> 00:52:02,800

six seven eight nine or ten how psychic

1269

00:52:13,349 --> 00:52:10,950

seven

1270

00:52:15,430 --> 00:52:13,359

want to try another one

1271

00:52:17,670 --> 00:52:15,440

here we go

1272

00:52:22,390 --> 00:52:17,680

look into the future guess that number

1273

00:52:27,190 --> 00:52:25,030

seven what

1274

00:52:28,870 --> 00:52:27,200

this can't be of course of course it can

1275

00:52:30,790 --> 00:52:28,880

one more go one more go just to prove

1276

00:52:32,309 --> 00:52:30,800

it's not loaded or anything shake shake

1277

00:52:34,309 --> 00:52:32,319

shake look into the future guess that

1278

00:52:39,109 --> 00:52:34,319

number here we go

1279

00:52:43,349 --> 00:52:40,470

two

1280

00:52:47,030 --> 00:52:43,359

all those people who got 772

1281

00:52:48,870 --> 00:52:47,040

you win some homeopathic coconut water

1282

00:52:53,910 --> 00:52:48,880

but for now this is richard saunders

1283

00:52:57,589 --> 00:52:55,589

you've been listening to the skeptic

1284

00:53:00,950 --> 00:52:57,599

zone visit our website at