

The Skeptic Zone

Show 259 - 6 Oct 2013



1
00:00:22,640 --> 00:00:09,080
welcome to the skeptic zone the podcast

2
00:00:28,950 --> 00:00:25,350
hello and welcome to the skeptic zone

3
00:00:32,130 --> 00:00:28,960
for the sixth of October happy birthday

4
00:00:36,090 --> 00:00:32,140
to my sister Elizabeth 2013 episode

5
00:00:38,520 --> 00:00:36,100
number 259 today on the show going to

6
00:00:41,610 --> 00:00:38,530
kick off with other welcome return of

7
00:00:42,959 --> 00:00:41,620
dr. rachy reports dr. rachy is going to

8
00:00:45,630 --> 00:00:42,969
be telling us all about the very

9
00:00:49,619 --> 00:00:45,640
important paper she has co offered all

10
00:00:52,290 --> 00:00:49,629
about motor neuron disease it's

11
00:00:54,689 --> 00:00:52,300
fascinating it really brings home the

12
00:00:56,880 --> 00:00:54,699
fact to me that dr. 'he is a world-class

13
00:00:59,160 --> 00:00:56,890

scientist and we've got the likes of the

14

00:01:02,790 --> 00:00:59,170

anti-vaccination crowd pouring scorn on

15

00:01:04,470 --> 00:01:02,800

dr. Richie well okay anti-vaxxers you

16

00:01:06,570 --> 00:01:04,480

come up with the scientific paper of

17

00:01:11,219 --> 00:01:06,580

this caliber and maybe people listen to

18

00:01:13,469 --> 00:01:11,229

you then again and after dr. Reggie

19

00:01:16,320 --> 00:01:13,479

report dr. a cheese back straightaway

20

00:01:19,170 --> 00:01:16,330

are interviewing the Warren bonnet from

21

00:01:21,450 --> 00:01:19,180

in biggin books in Melbourne dr. 'he was

22

00:01:25,080 --> 00:01:21,460

in melbourne recently to launch the

23

00:01:26,760 --> 00:01:25,090

explainer from the conversation website

24

00:01:29,640 --> 00:01:26,770

she's one of the authors of this new

25

00:01:32,520 --> 00:01:29,650

book a link to the book in the show

26

00:01:34,770 --> 00:01:32,530

notes or if you just google the

27

00:01:36,780 --> 00:01:34,780

explainer the conversation you're sure

28

00:01:38,550 --> 00:01:36,790

to find it so we'll hear her interview

29

00:01:42,300 --> 00:01:38,560

of warren bonnet and then we'll hear a

30

00:01:44,610 --> 00:01:42,310

little bit from doctormick vague and dr.

31

00:01:47,130 --> 00:01:44,620

Richie as they helped launch the book

32

00:01:49,380 --> 00:01:47,140

there in Melbourne after that we have an

33

00:01:52,230 --> 00:01:49,390

important message from susan goreck from

34

00:01:53,910 --> 00:01:52,240

the guerrilla skepticism campaign thanks

35

00:01:57,210 --> 00:01:53,920

Susan for sending that along to me and

36

00:01:59,130 --> 00:01:57,220

then we have one from the archives one

37

00:02:02,070 --> 00:01:59,140

from the archives and I'll explain why

38

00:02:04,080 --> 00:02:02,080

in a moment I was on radio to UE here in

39

00:02:07,230 --> 00:02:04,090

Sydney some time ago i'm not even sure

40

00:02:09,930 --> 00:02:07,240

when it was maybe maybe eight years ago

41

00:02:12,300 --> 00:02:09,940

talking about the mind-body-spirit

42

00:02:16,410 --> 00:02:12,310

festival but you know when i listen to

43

00:02:18,509 --> 00:02:16,420

my own interview back still relevant

44

00:02:21,209 --> 00:02:18,519

today so one from the archives me on

45

00:02:23,069 --> 00:02:21,219

radio talking about the mind-body wallet

46

00:02:24,599 --> 00:02:23,079

festival and then to wrap up the show

47

00:02:26,980 --> 00:02:24,609

it's a week in science without good

48

00:02:32,890 --> 00:02:26,990

friends from the Royal Institution avast

49

00:02:34,720 --> 00:02:32,900

earlier w WR I a uso GA you and you can

50

00:02:37,180 --> 00:02:34,730

meet dr. Paul Willis from the Royal

51
00:02:40,150 --> 00:02:37,190
Institution and a week in science at the

52
00:02:42,640 --> 00:02:40,160
upcoming national Australian skeptics

53
00:02:44,760 --> 00:02:42,650
convention in Canberra on the

54
00:02:48,480 --> 00:02:44,770
twenty-second to 24th and November

55
00:02:52,360 --> 00:02:48,490
latest news is i think there's about

56
00:02:54,460 --> 00:02:52,370
hopefully some tickets left there are

57
00:02:56,320 --> 00:02:54,470
some tickets left but not many it's

58
00:02:59,020 --> 00:02:56,330
they've done a wonderful job there it's

59
00:03:01,900 --> 00:02:59,030
almost completely gone all the tickets

60
00:03:03,430 --> 00:03:01,910
are almost sold out if he's going to get

61
00:03:07,620 --> 00:03:03,440
the ticket now it's the time to get it

62
00:03:09,990 --> 00:03:07,630
and just a couple of announcements

63
00:03:12,490 --> 00:03:10,000

wollongong skeptics in the pub

64

00:03:14,110 --> 00:03:12,500

Wollongong skeptics in the pub they've

65

00:03:16,780 --> 00:03:14,120

been around for about 14 months now and

66

00:03:19,450 --> 00:03:16,790

they meet on the last thursday of each

67

00:03:22,270 --> 00:03:19,460

month if you're in the wollongong area

68

00:03:24,040 --> 00:03:22,280

hey why not go along find out more by

69

00:03:28,210 --> 00:03:24,050

visiting their meetup site which is

70

00:03:31,450 --> 00:03:28,220

meetup com wollongong hyphen skeptics

71

00:03:33,160 --> 00:03:31,460

hyphen in hyphen the hyphen pub or I

72

00:03:35,350 --> 00:03:33,170

guess if you just Google Wollongong

73

00:03:37,150 --> 00:03:35,360

skeptics in the pub you should be able

74

00:03:38,980 --> 00:03:37,160

to find out more I might try and make

75

00:03:41,340 --> 00:03:38,990

that myself that sounds like great fun

76

00:03:44,500 --> 00:03:41,350

my mum lives down in an area so why not

77

00:03:47,620 --> 00:03:44,510

wollongong skeptics in the pub last

78

00:03:49,290 --> 00:03:47,630

thursday of each month most of people

79

00:03:51,640 --> 00:03:49,300

who are listening around the world

80

00:03:54,910 --> 00:03:51,650

wollongong is just south of sydney run

81

00:03:57,420 --> 00:03:54,920

to Google Maps or Apple maps and have a

82

00:04:02,080 --> 00:03:57,430

look and also if you want to help

83

00:04:04,120 --> 00:04:02,090

Maynard from may not spooky action you

84

00:04:06,100 --> 00:04:04,130

can contribute to Maynard's hotel room

85

00:04:08,680 --> 00:04:06,110

it sounds a bit suspicious but there you

86

00:04:10,120 --> 00:04:08,690

go we're hoping to raise three hundred

87

00:04:11,500 --> 00:04:10,130

and eighty dollars not much we've

88

00:04:13,330 --> 00:04:11,510

already kicked it off we've already got

89

00:04:16,750 --> 00:04:13,340

some money in there if you go to ww

90

00:04:19,180 --> 00:04:16,760

skeptic zone TV you can see main answer

91

00:04:22,630 --> 00:04:19,190

thermometer mmm this is getting worse

92

00:04:24,370 --> 00:04:22,640

and how that's progressing and you can

93

00:04:26,530 --> 00:04:24,380

chip in you can buy us a round of drinks

94

00:04:28,900 --> 00:04:26,540

you'll see the link there it would

95

00:04:31,030 --> 00:04:28,910

really help and and if may not can get

96

00:04:33,550 --> 00:04:31,040

down there to stay in Canberra for the

97

00:04:36,909 --> 00:04:33,560

National Convention he'll be bringing

98

00:04:39,460 --> 00:04:36,919

you many interesting hours of reports

99

00:04:41,140 --> 00:04:39,470

and insights so if you can help

100

00:04:44,440 --> 00:04:41,150

contribute to main

101
00:04:47,260 --> 00:04:44,450
ads hotel room we all really appreciate

102
00:04:48,880 --> 00:04:47,270
that now I had hope to bring you more

103
00:04:53,280 --> 00:04:48,890
information about the chiropractor's

104
00:04:57,130 --> 00:04:53,290
this week chiropractors in the news

105
00:04:59,320 --> 00:04:57,140
links to reports of chiropractor

106
00:05:01,410 --> 00:04:59,330
breaking a baby's neck and stinking in

107
00:05:03,880 --> 00:05:01,420
the hospitals and all that sort of stuff

108
00:05:05,590 --> 00:05:03,890
but keep listening right to the end of

109
00:05:07,650 --> 00:05:05,600
the show and you'll understand why this

110
00:05:11,590 --> 00:05:07,660
week has been a little bit unusual and

111
00:05:13,830 --> 00:05:11,600
maybe not the happiest of weeks but

112
00:05:16,360 --> 00:05:13,840
never mind for now I'm going to wear

113
00:05:19,150 --> 00:05:16,370

have a nice glass of lemon lime and

114

00:05:33,059 --> 00:05:19,160

bitters while do you enjoy the skeptics

115

00:05:41,800 --> 00:05:36,430

now it's time for dr. Rachel reports

116

00:05:45,249 --> 00:05:41,810

with dr. Rachel Dunlop hello listeners

117

00:05:46,839 --> 00:05:45,259

and welcome to dr. Richie reports well I

118

00:05:48,550 --> 00:05:46,849

haven't done a report for a while on the

119

00:05:49,960 --> 00:05:48,560

zone and there's a reason for that and

120

00:05:51,969 --> 00:05:49,970

I'm going to explain that to you in a

121

00:05:55,510 --> 00:05:51,979

moment I've actually been a little bit

122

00:05:57,850 --> 00:05:55,520

busy doing science we've recently had a

123

00:06:00,760 --> 00:05:57,860

paper published in my group my area of

124

00:06:03,520 --> 00:06:00,770

research is murder neuron disease which

125

00:06:06,430 --> 00:06:03,530

is also known as amyotrophic lateral

126
00:06:08,140 --> 00:06:06,440
sclerosis or Lou Gehrig's disease I'm

127
00:06:10,990 --> 00:06:08,150
going to refer to it throughout this

128
00:06:13,149 --> 00:06:11,000
report as ALS for the sake of not

129
00:06:15,490 --> 00:06:13,159
getting confused or mixing up my words

130
00:06:17,710 --> 00:06:15,500
but this week we had a very big

131
00:06:20,140 --> 00:06:17,720
publication accepted and published in

132
00:06:21,790 --> 00:06:20,150
the online journal PLoS ONE and i'm

133
00:06:24,219 --> 00:06:21,800
going to give you today a short summary

134
00:06:26,589 --> 00:06:24,229
about the background to that research

135
00:06:29,559 --> 00:06:26,599
and also describe the significance of

136
00:06:31,510 --> 00:06:29,569
this finding for people with ALS so

137
00:06:33,730 --> 00:06:31,520
scientists have known for some time now

138
00:06:35,529 --> 00:06:33,740

that exposure to blue-green algae is

139

00:06:38,649 --> 00:06:35,539

linked to an increased incidence of

140

00:06:39,999 --> 00:06:38,659

several neurodegenerative diseases but

141

00:06:43,089 --> 00:06:40,009

the reason for the link has been a

142

00:06:45,550 --> 00:06:43,099

mystery until now research published in

143

00:06:49,270 --> 00:06:45,560

the journal PLoS ONE on September the

144

00:06:52,120 --> 00:06:49,280

25th may have the answer an alkyl toxin

145

00:06:54,159 --> 00:06:52,130

called BMAA has been long associated

146

00:06:57,520 --> 00:06:54,169

with the increased incidence of a motor

147

00:06:59,320 --> 00:06:57,530

neuron disease called ALS but for many

148

00:07:02,170 --> 00:06:59,330

years the hypothesis suffered repeated

149

00:07:04,659 --> 00:07:02,180

blows as skeptics poked at the gaping

150

00:07:07,839 --> 00:07:04,669

hole in the theory and that was a lack

151
00:07:10,059 --> 00:07:07,849
of a plausible mechanism but now a team

152
00:07:12,370 --> 00:07:10,069
of cell biologists and ethno botanist

153
00:07:14,550 --> 00:07:12,380
it's based in both Australia and Wyoming

154
00:07:17,800 --> 00:07:14,560
in the United States including myself

155
00:07:19,659 --> 00:07:17,810
have revealed that BMAA mimics and a

156
00:07:23,279 --> 00:07:19,669
minor acid that our body is naturally

157
00:07:25,930 --> 00:07:23,289
used to make proteins called l-serine

158
00:07:28,540 --> 00:07:25,940
mistaking the toxin for this amino acid

159
00:07:30,909 --> 00:07:28,550
l-serine means the body incorporates the

160
00:07:34,240 --> 00:07:30,919
toxin into human proteins rendering them

161
00:07:36,640 --> 00:07:34,250
harmful now because people can have low

162
00:07:39,519 --> 00:07:36,650
levels of exposure to be MAA over long

163
00:07:42,760 --> 00:07:39,529

periods it can take between 10 to 15

164

00:07:44,950 --> 00:07:42,770

years before symptoms of ALS appear

165

00:07:48,430 --> 00:07:44,960

but the time from diagnosis to death can

166

00:07:50,170 --> 00:07:48,440

be as short as three years so this

167

00:07:52,990 --> 00:07:50,180

interestingly has something to do with

168

00:07:56,740 --> 00:07:53,000

Guam in the Pacific Ocean and fruit bats

169

00:07:58,689 --> 00:07:56,750

and I'm going to explain why so BMAA the

170

00:08:01,210 --> 00:07:58,699

alcohol toxin was first identified over

171

00:08:03,369 --> 00:08:01,220

40 years ago but was not linked to

172

00:08:05,860 --> 00:08:03,379

disease until ethno botanist and my

173

00:08:07,719 --> 00:08:05,870

collaborator dr. Paul Cox descended into

174

00:08:10,990 --> 00:08:07,729

the jungles of the Pacific island of

175

00:08:12,430 --> 00:08:11,000

Guam what he was searching for was the

176

00:08:15,490 --> 00:08:12,440

causes of a devastating neurological

177

00:08:17,950 --> 00:08:15,500

disease which was known as amyotrophic

178

00:08:23,439 --> 00:08:17,960

lateral sclerosis Parkinson's dementia

179

00:08:25,059 --> 00:08:23,449

like complex or ALS PDC which had killed

180

00:08:28,420 --> 00:08:25,069

nearly half of the adult indigenous

181

00:08:30,490 --> 00:08:28,430

population known as the Chamorros now

182

00:08:33,130 --> 00:08:30,500

although about 20 genes have now been

183

00:08:35,170 --> 00:08:33,140

linked to ALS around ninety percent of

184

00:08:38,290 --> 00:08:35,180

cases are of unknown cause and there's

185

00:08:40,540 --> 00:08:38,300

no cure so predictably a search for a

186

00:08:44,620 --> 00:08:40,550

genetic cause on Guam quickly reached a

187

00:08:47,110 --> 00:08:44,630

dead end but the trip was not wasted dr.

188

00:08:49,060 --> 00:08:47,120

Paul Cox noted that like Australian

189

00:08:52,150 --> 00:08:49,070

Aboriginals the Chamorros relied heavily

190

00:08:54,660 --> 00:08:52,160

on the seeds of the cycad palm to make

191

00:08:56,889 --> 00:08:54,670

flour for tortillas and dumplings and

192

00:08:59,440 --> 00:08:56,899

also like their Australian counterparts

193

00:09:01,690 --> 00:08:59,450

they knew the unwashed flour contained a

194

00:09:05,460 --> 00:09:01,700

poison of some description so they

195

00:09:08,410 --> 00:09:05,470

washed the flour thoroughly before use

196

00:09:10,960 --> 00:09:08,420

cox and his colleague dr. sandrov banaag

197

00:09:13,720 --> 00:09:10,970

who was also on this paper found a

198

00:09:15,579 --> 00:09:13,730

neurotoxin in the flour but it was in

199

00:09:17,530 --> 00:09:15,589

such low quantities that locals would

200

00:09:19,210 --> 00:09:17,540

need to consume over one ton of the

201
00:09:22,600 --> 00:09:19,220
flour before they could possibly get

202
00:09:26,260 --> 00:09:22,610
sick so this left the hypothesis up in

203
00:09:28,060 --> 00:09:26,270
the air but also of interest to Cox and

204
00:09:30,460 --> 00:09:28,070
Bannock was that the Chamorros had a

205
00:09:33,519 --> 00:09:30,470
voracious appetite for fruit bat coconut

206
00:09:36,190 --> 00:09:33,529
soup a delicacy described by the locals

207
00:09:38,440 --> 00:09:36,200
as like nothing you've ever tasted the

208
00:09:40,329 --> 00:09:38,450
bats also ate the cycad seeds but

209
00:09:43,150 --> 00:09:40,339
curiously they had what appeared to be

210
00:09:46,150 --> 00:09:43,160
exorbitantly high levels of BMA for what

211
00:09:48,730 --> 00:09:46,160
they had consumed and an analysis of

212
00:09:50,710 --> 00:09:48,740
their tissue found that BMAA stuck to

213
00:09:53,319 --> 00:09:50,720

their proteins enabling it to

214

00:09:55,360 --> 00:09:53,329

concentrate in their flesh so when the

215

00:09:56,260 --> 00:09:55,370

Chamorros ate the bats they got a huge

216

00:10:00,010 --> 00:09:56,270

dose of B

217

00:10:02,530 --> 00:10:00,020

ma now this process is now termed

218

00:10:06,220 --> 00:10:02,540

bioconcentration and has been observed

219

00:10:07,450 --> 00:10:06,230

in shellfish crustaceans and sharks but

220

00:10:11,110 --> 00:10:07,460

then how is this linked to

221

00:10:13,750 --> 00:10:11,120

neurodegeneration well BMAA has been

222

00:10:15,790 --> 00:10:13,760

found in the brain tissue of ALS PDC

223

00:10:17,380 --> 00:10:15,800

patients from Guam as well as

224

00:10:20,650 --> 00:10:17,390

Alzheimer's patients from north america

225

00:10:23,230 --> 00:10:20,660

and other populations are also consumed

226

00:10:25,990 --> 00:10:23,240

cycad flour including people who live on

227

00:10:28,510 --> 00:10:26,000

the key peninsula of Japan and Western

228

00:10:32,860 --> 00:10:28,520

Papua New Guinea have also experienced

229

00:10:35,140 --> 00:10:32,870

clusters of ALS an elegant google maps

230

00:10:37,930 --> 00:10:35,150

analysis of New Hampshire in the United

231

00:10:40,000 --> 00:10:37,940

States also tracked ALS patients to

232

00:10:42,820 --> 00:10:40,010

having lived by lakes or other bodies of

233

00:10:45,190 --> 00:10:42,830

water that was subject to frequent algal

234

00:10:46,840 --> 00:10:45,200

blooms and the hypothesis behind this

235

00:10:49,210 --> 00:10:46,850

was they were actually inhaling the

236

00:10:51,730 --> 00:10:49,220

toxin because people who lives downwind

237

00:10:54,820 --> 00:10:51,740

of the lakes had even higher levels of

238

00:10:56,770 --> 00:10:54,830

ALS so just because it's natural doesn't

239

00:10:59,590 --> 00:10:56,780

mean it's safe and the idea that

240

00:11:02,500 --> 00:10:59,600

non-human amino acids in other words

241

00:11:05,500 --> 00:11:02,510

amino acids that come from plants can

242

00:11:07,480 --> 00:11:05,510

cause disease is not a new one indeed

243

00:11:08,890 --> 00:11:07,490

plants make thousands of a minor acid

244

00:11:12,430 --> 00:11:08,900

mimics that have been linked to human

245

00:11:14,410 --> 00:11:12,440

and animal diseases for decades now a

246

00:11:16,270 --> 00:11:14,420

tourism for example is a permanent

247

00:11:19,210 --> 00:11:16,280

paralytic condition that predominantly

248

00:11:22,210 --> 00:11:19,220

occurs in famine affected areas and is

249

00:11:26,410 --> 00:11:22,220

caused by an unusual amino acid known as

250

00:11:28,330 --> 00:11:26,420

Oh DAP further in our lab we've spent

251
00:11:30,250 --> 00:11:28,340
more than 10 years looking at the drug

252
00:11:33,550 --> 00:11:30,260
used in Parkinson's disease called labor

253
00:11:35,410 --> 00:11:33,560
dopa or l-dopa it's very similar to the

254
00:11:37,180 --> 00:11:35,420
human and my know I said that we use in

255
00:11:41,920 --> 00:11:37,190
our own proteins are called a tyrosine

256
00:11:44,350 --> 00:11:41,930
and like BMAA l-dopa can also be miss

257
00:11:48,070 --> 00:11:44,360
incorporated or accidentally inserted

258
00:11:49,960 --> 00:11:48,080
into our proteins and also like BMAA the

259
00:11:52,540 --> 00:11:49,970
resulting proteins do not fold correctly

260
00:11:54,970 --> 00:11:52,550
they build up his junk inside the cell

261
00:11:56,920 --> 00:11:54,980
over time eventually choking the cell

262
00:11:58,930 --> 00:11:56,930
and sending it into programmed cell

263
00:12:02,200 --> 00:11:58,940

death or suicide which is known as

264

00:12:04,720 --> 00:12:02,210

apoptosis importantly cell suicide

265

00:12:06,490 --> 00:12:04,730

induced by misfolded proteins is now

266

00:12:08,650 --> 00:12:06,500

known to occur in a variety of

267

00:12:09,990 --> 00:12:08,660

neurodegenerative diseases such as

268

00:12:14,130 --> 00:12:10,000

Alzheimer's

269

00:12:16,170 --> 00:12:14,140

essence and importantly in ALS so what's

270

00:12:18,510 --> 00:12:16,180

this got to do with blue-green algae and

271

00:12:20,400 --> 00:12:18,520

bats after all who in Australia or in

272

00:12:23,100 --> 00:12:20,410

most of the Western world eats fruit

273

00:12:25,380 --> 00:12:23,110

bats well let's go back to blue-green

274

00:12:27,090 --> 00:12:25,390

algae for a moment the size and

275

00:12:29,130 --> 00:12:27,100

frequency of algal blooms which

276

00:12:30,900 --> 00:12:29,140

typically appear as a green carpet on

277

00:12:32,820 --> 00:12:30,910

the surface of lakes and rivers is

278

00:12:34,920 --> 00:12:32,830

increasing with rising water

279

00:12:36,990 --> 00:12:34,930

temperatures and with an excessive

280

00:12:39,180 --> 00:12:37,000

richness in nutrients in bodies of water

281

00:12:42,030 --> 00:12:39,190

such as lakes and this is caused by

282

00:12:44,250 --> 00:12:42,040

overflow or runoff from agriculture and

283

00:12:47,760 --> 00:12:44,260

farming or if you want to get technical

284

00:12:49,500 --> 00:12:47,770

ultra filtration indeed Australia is the

285

00:12:52,140 --> 00:12:49,510

proud owner of the largest freshwater

286

00:12:56,190 --> 00:12:52,150

algal bloom in the world which occurred

287

00:12:58,430 --> 00:12:56,200

in the summer of 1991-92 covering 1,200

288

00:13:01,560 --> 00:12:58,440

kilometres of the barwon murray basin

289

00:13:03,960 --> 00:13:01,570

but you may ask if it's true that we're

290

00:13:06,630 --> 00:13:03,970

all being exposed to BMI ages to some

291

00:13:09,570 --> 00:13:06,640

degree then why do we not all have ALS

292

00:13:12,690 --> 00:13:09,580

well this is a very good question and a

293

00:13:15,150 --> 00:13:12,700

very important one with an instance rate

294

00:13:18,180 --> 00:13:15,160

of about one in a hundred thousand ALS

295

00:13:20,790 --> 00:13:18,190

is relatively rare and exposure to be ma

296

00:13:23,820 --> 00:13:20,800

obviously alone does not appear to be

297

00:13:26,190 --> 00:13:23,830

sufficient to cause disease like many

298

00:13:28,710 --> 00:13:26,200

illnesses it's likely that als is a

299

00:13:30,750 --> 00:13:28,720

multifactorial condition requiring

300

00:13:33,360 --> 00:13:30,760

several factors to come together to

301
00:13:34,800 --> 00:13:33,370
trigger the disease research now is

302
00:13:36,990 --> 00:13:34,810
beginning to point the finger at the

303
00:13:39,450 --> 00:13:37,000
role of poorly functioning recycling and

304
00:13:41,190 --> 00:13:39,460
refolding machinery in ourselves but

305
00:13:43,770 --> 00:13:41,200
obviously also there's likely a role for

306
00:13:47,700 --> 00:13:43,780
genes and other forms of susceptibility

307
00:13:49,350 --> 00:13:47,710
as yet unidentified so in summary BMAA

308
00:13:51,720 --> 00:13:49,360
might be just one factor in this

309
00:13:54,900 --> 00:13:51,730
devastating disease but at least we now

310
00:13:57,210 --> 00:13:54,910
know how it might be causing toxicity we

311
00:14:00,210 --> 00:13:57,220
know it's swapping out a human amino

312
00:14:02,160 --> 00:14:00,220
acid for a plant and 10 acid and because

313
00:14:04,920 --> 00:14:02,170

we have evidence for a role for BMA

314

00:14:07,200 --> 00:14:04,930

replacing l-serine these findings might

315

00:14:09,420 --> 00:14:07,210

go some way to developing a therapy and

316

00:14:12,150 --> 00:14:09,430

that is something for patients many of

317

00:14:14,010 --> 00:14:12,160

whom have nothing if you'd like to read

318

00:14:15,329 --> 00:14:14,020

the full paper that's related to this

319

00:14:17,579 --> 00:14:15,339

study that was published on the

320

00:14:21,150 --> 00:14:17,589

twenty-fifth of September you can google

321

00:14:23,250 --> 00:14:21,160

plus 1 and Dunlop RA for Rachel Ann and

322

00:14:23,850 --> 00:14:23,260

you'll find it I'd also just like to

323

00:14:25,139 --> 00:14:23,860

mention that

324

00:14:27,360 --> 00:14:25,149

this research received massive

325

00:14:30,210 --> 00:14:27,370

mainstream media coverage in Australia

326

00:14:32,579 --> 00:14:30,220

and internationally indeed it actually

327

00:14:35,579 --> 00:14:32,589

went viral eventually being posted on

328

00:14:38,730 --> 00:14:35,589

the ifl s facebook page which has over

329

00:14:40,139 --> 00:14:38,740

7.1 million likes I'd like to send a

330

00:14:42,180 --> 00:14:40,149

special thanks to everyone who took

331

00:14:44,490 --> 00:14:42,190

interest in this research and coveted on

332

00:14:47,460 --> 00:14:44,500

their radio stations TV blogs or

333

00:14:49,110 --> 00:14:47,470

wherever else as a result of that it

334

00:14:51,480 --> 00:14:49,120

looks like we may be able to get some

335

00:14:53,400 --> 00:14:51,490

funding to continue it next year two

336

00:14:55,920 --> 00:14:53,410

weeks ago it seemed very unlikely that

337

00:14:58,740 --> 00:14:55,930

that would happen science for the win

338

00:15:04,629 --> 00:14:58,750

and until next time this has been dr.

339

00:15:09,829 --> 00:15:07,369

okay so i'm here in melbourne today at

340

00:15:11,210 --> 00:15:09,839

the launch of the explainer which is a

341

00:15:14,689 --> 00:15:11,220

book put together by the conversation

342

00:15:16,460 --> 00:15:14,699

and CSIRO publishing and I'm in the back

343

00:15:18,889 --> 00:15:16,470

corner of in biggin books here in

344

00:15:21,499 --> 00:15:18,899

Melbourne with the owner Warren bonnet

345

00:15:24,470 --> 00:15:21,509

hi Warren hello hello and thanks for

346

00:15:26,960 --> 00:15:24,480

putting on this launch today tell us a

347

00:15:30,379 --> 00:15:26,970

little bit about what you focus on in

348

00:15:32,780 --> 00:15:30,389

the bookstore in biggin books well we've

349

00:15:36,710 --> 00:15:32,790

got a very big focus on science and

350

00:15:38,900 --> 00:15:36,720

philosophy with the overall intention to

351
00:15:42,350 --> 00:15:38,910
get more science information out there

352
00:15:45,049 --> 00:15:42,360
and critical thinking and this book the

353
00:15:47,829 --> 00:15:45,059
explainer that has been put out by CSIRO

354
00:15:50,449 --> 00:15:47,839
publishing in the conversation is

355
00:15:52,790 --> 00:15:50,459
perfect for us it really fills the gap

356
00:15:55,129 --> 00:15:52,800
that we haven't been able to fill before

357
00:15:58,369 --> 00:15:55,139
so it's it's just perfect for us and I

358
00:16:00,920 --> 00:15:58,379
desperately wanted to do it so there's

359
00:16:02,900 --> 00:16:00,930
probably others tons of authors in there

360
00:16:05,449 --> 00:16:02,910
I'm one of them Mick vac dr. macfag

361
00:16:08,509 --> 00:16:05,459
who's also here today is another one it

362
00:16:10,160 --> 00:16:08,519
looks at things that explains simple

363
00:16:11,989 --> 00:16:10,170

things that people might not know like

364

00:16:14,360 --> 00:16:11,999

why is the sky blue or how do vaccines

365

00:16:16,369 --> 00:16:14,370

work but it's all written in short

366

00:16:18,549 --> 00:16:16,379

chapters so people could even read it in

367

00:16:22,129 --> 00:16:18,559

the bathroom if they want couldn't they

368

00:16:24,889 --> 00:16:22,139

look for in short public transport trips

369

00:16:29,329 --> 00:16:24,899

and all it's just it's great and there's

370

00:16:30,889 --> 00:16:29,339

the short chapters enable people to not

371

00:16:33,110 --> 00:16:30,899

get bogged down and stuff and not the

372

00:16:35,269 --> 00:16:33,120

over faced by things and they can take

373

00:16:36,799 --> 00:16:35,279

it further from there with particular

374

00:16:40,489 --> 00:16:36,809

things that they get interested in and

375

00:16:42,559 --> 00:16:40,499

we do get asked for books specifically

376

00:16:45,110 --> 00:16:42,569

saying I want books it sort of you know

377

00:16:46,369 --> 00:16:45,120

how it explains stuff you know general

378

00:16:48,139 --> 00:16:46,379

you know general sort of science book

379

00:16:50,059 --> 00:16:48,149

old-fashioned sort of thing you know and

380

00:16:53,119 --> 00:16:50,069

so we get asked that if they're bitten

381

00:16:57,410 --> 00:16:53,129

and mostly the books that fill that are

382

00:16:57,680 --> 00:16:57,420

either aimed at kids or very quirky you

383

00:17:00,260 --> 00:16:57,690

know

384

00:17:03,320 --> 00:17:00,270

and that have that humorous kind of

385

00:17:05,179 --> 00:17:03,330

style to which is fine but it doesn't

386

00:17:07,069 --> 00:17:05,189

appeal to a lot of people out there so

387

00:17:10,309 --> 00:17:07,079

they it's it's good to have something

388

00:17:13,579 --> 00:17:10,319

that it just seems it does take itself a

389

00:17:15,380 --> 00:17:13,589

little bit more seriously yeah and the

390

00:17:16,610 --> 00:17:15,390

wealth of talent in there is some sort

391

00:17:19,340 --> 00:17:16,620

of something you wouldn't normally find

392

00:17:21,140 --> 00:17:19,350

in one book because these people are all

393

00:17:23,270 --> 00:17:21,150

academics some with very high

394

00:17:25,130 --> 00:17:23,280

specialties writing for a lay audience

395

00:17:28,040 --> 00:17:25,140

so it's quite unique in that sense too

396

00:17:31,190 --> 00:17:28,050

isn't it it is over 70 contributors i

397

00:17:34,310 --> 00:17:31,200

think it is amazing really at getting

398

00:17:37,580 --> 00:17:34,320

that into a coherent format is his hard

399

00:17:40,490 --> 00:17:37,590

work so they've done it they've done a

400

00:17:42,860 --> 00:17:40,500

great job with it and I hope it goes on

401
00:17:45,890 --> 00:17:42,870
I hope that that it's successful enough

402
00:17:47,420 --> 00:17:45,900
that there's another and another yeah

403
00:17:49,190 --> 00:17:47,430
well the format is such that you can

404
00:17:51,350 --> 00:17:49,200
easily continue doing this couldn't you

405
00:17:53,500 --> 00:17:51,360
and it's also convenient because it's a

406
00:17:57,380 --> 00:17:53,510
nice stocking stuffer for Christmas

407
00:18:00,530 --> 00:17:57,390
indeed it is hint hint and it's only

408
00:18:03,140 --> 00:18:00,540
twenty dollars that's right i mean it's

409
00:18:05,420 --> 00:18:03,150
just fabulous and CSIRO publishing who

410
00:18:07,310 --> 00:18:05,430
have who have published it have done a

411
00:18:09,410 --> 00:18:07,320
great job with it and it's a nice

412
00:18:11,840 --> 00:18:09,420
production as well which is good it

413
00:18:13,520 --> 00:18:11,850

shows respect for the subject yeah well

414

00:18:15,170 --> 00:18:13,530

thanks for organizing the launch today

415

00:18:17,180 --> 00:18:15,180

Warren and I hope that you sell out and

416

00:18:18,710 --> 00:18:17,190

that you have to get in more stock and I

417

00:18:21,770 --> 00:18:18,720

certainly plan to buy some copies even

418

00:18:26,810 --> 00:18:21,780

though I mean it very good I and me too

419

00:18:28,220 --> 00:18:26,820

in fact thanks Warren thank you a lot of

420

00:18:31,000 --> 00:18:28,230

opportunities have come my way as a

421

00:18:34,310 --> 00:18:31,010

result of this i've i've been on abc-tv

422

00:18:37,400 --> 00:18:34,320

i've been on lots of radio interviews

423

00:18:39,230 --> 00:18:37,410

even men is to get commissioned by the

424

00:18:47,120 --> 00:18:39,240

Guardian to write a piece about fluoride

425

00:18:49,730 --> 00:18:47,130

conspiracy notice comments are 500 the I

426

00:18:52,760 --> 00:18:49,740

haven't read many of them it's truly but

427

00:18:54,440 --> 00:18:52,770

but i think you know in order to be able

428

00:18:57,710 --> 00:18:54,450

to give people like me a voice which is

429

00:18:58,760 --> 00:18:57,720

a nice voice but it's an incredible

430

00:19:00,500 --> 00:18:58,770

opportunity and

431

00:19:03,590 --> 00:19:00,510

no you know I'm just incredibly happy to

432

00:19:05,540 --> 00:19:03,600

need to be part of it part of being on

433

00:19:08,150 --> 00:19:05,550

the conversation nose is just the last

434

00:19:10,400 --> 00:19:08,160

week I did have a bit of a look through

435

00:19:15,980 --> 00:19:10,410

at some of the best comments that people

436

00:19:18,140 --> 00:19:15,990

have posted and I think the the one

437

00:19:20,360 --> 00:19:18,150

which I'm fairly happy with is to say

438

00:19:24,910 --> 00:19:20,370

the only worse thing that an evangelical

439

00:19:30,710 --> 00:19:28,160

somebody said nice to see a bit of

440

00:19:33,140 --> 00:19:30,720

passion presented on the other hand vags

441

00:19:35,510 --> 00:19:33,150

Western centric superior attitude is

442

00:19:37,040 --> 00:19:35,520

distastefully marrow integrative

443

00:19:38,570 --> 00:19:37,050

medicine has its place because

444

00:19:41,510 --> 00:19:38,580

conventional medicine has its

445

00:19:43,220 --> 00:19:41,520

limitations indeed Chinese and Indian

446

00:19:46,130 --> 00:19:43,230

energy medicine has been practiced for

447

00:19:51,500 --> 00:19:46,140

thousands of years to denigrated maybe

448

00:19:53,390 --> 00:19:51,510

both mistaken and racist oh and and of

449

00:19:57,110 --> 00:19:53,400

course the best ones are on the on the

450

00:20:00,110 --> 00:19:57,120

topic of fluoride always gets the

451
00:20:02,840 --> 00:20:00,120
matters like nothing else one of the

452
00:20:04,880 --> 00:20:02,850
posts that I did reference the website

453
00:20:06,290 --> 00:20:04,890
called conspiracy planet and if you

454
00:20:09,230 --> 00:20:06,300
haven't seen like I thoroughly recommend

455
00:20:11,270 --> 00:20:09,240
you check it out but one of the climates

456
00:20:13,250 --> 00:20:11,280
there was some dr. vaghn a sneer at

457
00:20:16,490 --> 00:20:13,260
conspiracy planet but he's unable to

458
00:20:18,260 --> 00:20:16,500
refute their basic point obedience to

459
00:20:21,260 --> 00:20:18,270
authority has increased dramatically

460
00:20:24,140 --> 00:20:21,270
since world war two whole body scans and

461
00:20:26,180 --> 00:20:24,150
airports anyone and this seems to have

462
00:20:29,690 --> 00:20:26,190
mysteriously paralleled the growing

463
00:20:32,510 --> 00:20:29,700

practice of fluoridation no incidence

464

00:20:35,000 --> 00:20:32,520

you may say well the link is every bit

465

00:20:39,590 --> 00:20:35,010

as solid as the link between co2 levels

466

00:20:42,080 --> 00:20:39,600

and global warming and but my favorite

467

00:20:45,670 --> 00:20:42,090

one though is my favorite one was when

468

00:20:49,790 --> 00:20:45,680

one of the commenters was trying to

469

00:20:51,770 --> 00:20:49,800

point out that Townsville had recently

470

00:20:53,540 --> 00:20:51,780

become fluoridated whereas most of the

471

00:20:57,530 --> 00:20:53,550

area around in Queensland hadn't been

472

00:21:00,230 --> 00:20:57,540

and they were quoting from the local

473

00:21:01,940 --> 00:21:00,240

area health service reports up so fair

474

00:21:03,890 --> 00:21:01,950

play to them they would try to find

475

00:21:05,270 --> 00:21:03,900

sources to back up their argument which

476
00:21:06,600 --> 00:21:05,280
is what we encourage in the comment

477
00:21:09,720 --> 00:21:06,610
section

478
00:21:11,460 --> 00:21:09,730
but I did point out that the further

479
00:21:14,100 --> 00:21:11,470
down the same document that they were

480
00:21:16,410 --> 00:21:14,110
trying to quote the Local Area Health

481
00:21:18,419 --> 00:21:16,420
Service had in fact given its opinions

482
00:21:20,520 --> 00:21:18,429
as to why those people in in their

483
00:21:22,530 --> 00:21:20,530
catchment had terrible bad health and it

484
00:21:24,330 --> 00:21:22,540
was probably due to the higher than

485
00:21:26,490 --> 00:21:24,340
average rates of obesity higher than

486
00:21:29,010 --> 00:21:26,500
average rates and older people retiring

487
00:21:30,930 --> 00:21:29,020
in here and so forth and so forth so so

488
00:21:33,150 --> 00:21:30,940

the response to me pointing that out was

489

00:21:36,870 --> 00:21:33,160

this which is my all-time favorite

490

00:21:38,940 --> 00:21:36,880

coming oh I get it now the whole town of

491

00:21:42,180 --> 00:21:38,950

Townsville is a statistical error a

492

00:21:44,700 --> 00:21:42,190

placebo effect sorry guys Townsville is

493

00:21:48,539 --> 00:21:44,710

part of a statistical deviation not the

494

00:21:50,430 --> 00:21:48,549

publishable results dr. Varughese saying

495

00:21:57,380 --> 00:21:50,440

that people in Townsville are dying

496

00:22:03,150 --> 00:21:57,390

because they are bogans not because so

497

00:22:06,360 --> 00:22:03,160

so is that only know I be our races I'm

498

00:22:09,720 --> 00:22:06,370

not even sure what anything it's so

499

00:22:11,070 --> 00:22:09,730

wrong but but I don't pay Queensland so

500

00:22:13,200 --> 00:22:11,080

I don't hate people who drink Florida

501
00:22:15,120 --> 00:22:13,210
and I don't even hate the crazy comment

502
00:22:16,740 --> 00:22:15,130
is because in fact the the level of

503
00:22:18,950 --> 00:22:16,750
comment that we get on the conversation

504
00:22:21,930 --> 00:22:18,960
website is actually a lot above

505
00:22:23,700 --> 00:22:21,940
comparable websites that have sort of

506
00:22:26,330 --> 00:22:23,710
pinched some of the articles we've done

507
00:22:30,090 --> 00:22:26,340
particularly on thinking of Mamma Mia

508
00:22:31,560 --> 00:22:30,100
but anyway 22 and I suppose that's the

509
00:22:32,940 --> 00:22:31,570
that's the most surreal thing when I

510
00:22:35,970 --> 00:22:32,950
started out this thing just to close

511
00:22:39,150 --> 00:22:35,980
that i really never did think when i

512
00:22:42,090 --> 00:22:39,160
began writing for the conversation and

513
00:22:45,240 --> 00:22:42,100

begin working on those pieces that any

514

00:22:47,220 --> 00:22:45,250

of them would end up on mama mia and i

515

00:22:49,080 --> 00:22:47,230

really didn't think that I'd actually be

516

00:22:51,000 --> 00:22:49,090

happy to see them in a pond member me

517

00:22:53,700 --> 00:22:51,010

and that i would actually be commenting

518

00:22:55,640 --> 00:22:53,710

to the commenters in one of them I never

519

00:22:57,830 --> 00:22:55,650

saw that in my life plan and

520

00:23:00,440 --> 00:22:57,840

it's come about as a result of of this

521

00:23:02,720 --> 00:23:00,450

website and so I hope everyone enjoys

522

00:23:04,670 --> 00:23:02,730

the book and bias lots of them and puts

523

00:23:12,220 --> 00:23:04,680

them in all the libraries and Christmas

524

00:23:16,760 --> 00:23:15,080

don't think I can really fly much on

525

00:23:17,900 --> 00:23:16,770

that week I think mixed covered most

526

00:23:19,760 --> 00:23:17,910

things but i wanted to especially

527

00:23:22,430 --> 00:23:19,770

acknowledge that fraud is here today

528

00:23:24,590 --> 00:23:22,440

she's our editor and she has been very

529

00:23:27,410 --> 00:23:24,600

patient with the both of us I haven't

530

00:23:29,390 --> 00:23:27,420

written nearly as much as Nick but I was

531

00:23:32,000 --> 00:23:29,400

fine you're very helpful and very open

532

00:23:33,920 --> 00:23:32,010

to my ideas which I appreciate I think

533

00:23:36,530 --> 00:23:33,930

what's important about these from a

534

00:23:39,920 --> 00:23:36,540

perspective as myself as a scientific

535

00:23:42,380 --> 00:23:39,930

researcher is it is it gives me the

536

00:23:44,630 --> 00:23:42,390

opportunity to get my work out to two

537

00:23:46,880 --> 00:23:44,640

people that wouldn't normally read it so

538

00:23:48,230 --> 00:23:46,890

particularly in the case of publishing

539

00:23:52,790 --> 00:23:48,240

scientific papers that are written in

540

00:23:55,700 --> 00:23:52,800

jargon and behind paywalls mostly I now

541

00:23:58,370 --> 00:23:55,710

have an opportunity to explain that in

542

00:24:01,280 --> 00:23:58,380

layman's terms in a simple way there's a

543

00:24:03,950 --> 00:24:01,290

huge audience just waiting to read stuff

544

00:24:05,840 --> 00:24:03,960

on the conversation and not only that it

545

00:24:07,880 --> 00:24:05,850

helps me to refine my writing skills

546

00:24:09,350 --> 00:24:07,890

which i think is really important it

547

00:24:13,130 --> 00:24:09,360

does has actually helped me to improve

548

00:24:15,290 --> 00:24:13,140

my scientific writing skills plus you

549

00:24:17,060 --> 00:24:15,300

mentioned briefly make that there's an

550

00:24:19,790 --> 00:24:17,070

opportunity for articles to get

551
00:24:23,840 --> 00:24:19,800
republished in other places and I've

552
00:24:26,690 --> 00:24:23,850
seen my stuff pop up on lifehacker SBS

553
00:24:29,570 --> 00:24:26,700
all kinds of places which is then

554
00:24:32,390 --> 00:24:29,580
perpetuating that audience in further so

555
00:24:35,150 --> 00:24:32,400
as scientists we often get accused of

556
00:24:38,660 --> 00:24:35,160
sitting in our labs and bothering away

557
00:24:40,910 --> 00:24:38,670
and not telling anybody what we do and I

558
00:24:43,400 --> 00:24:40,920
think that's true to some extent I think

559
00:24:45,290 --> 00:24:43,410
we do we do argue attea ban and

560
00:24:48,830 --> 00:24:45,300
particularly in times like now when

561
00:24:51,350 --> 00:24:48,840
we're losing a lot of funding we don't

562
00:24:52,940 --> 00:24:51,360
really have a justification for

563
00:24:56,660 --> 00:24:52,950

complaining because we don't tell people

564

00:24:58,460 --> 00:24:56,670

what we're doing with this we do so we

565

00:25:00,380 --> 00:24:58,470

get an opportunity to say look we're not

566

00:25:02,360 --> 00:25:00,390

just smelling taxpayers money on stuff

567

00:25:04,580 --> 00:25:02,370

that you don't understand here's how it

568

00:25:06,430 --> 00:25:04,590

works and here's what we're doing and I

569

00:25:09,470 --> 00:25:06,440

think that's really important for

570

00:25:12,200 --> 00:25:09,480

publicizing science for improving

571

00:25:14,870 --> 00:25:12,210

the public understanding of science and

572

00:25:18,140 --> 00:25:14,880

also because outreach is becoming such

573

00:25:20,450 --> 00:25:18,150

an important part of what I do when I

574

00:25:22,070 --> 00:25:20,460

want to get money from people if I can

575

00:25:24,560 --> 00:25:22,080

say well here's what I've done there's

576

00:25:28,909 --> 00:25:24,570

more likely to get funding but as you

577

00:25:30,560 --> 00:25:28,919

say it can it can be it can be very

578

00:25:32,210 --> 00:25:30,570

interesting that a lot of the stuff that

579

00:25:34,190 --> 00:25:32,220

I right which are similar to what Mike

580

00:25:37,310 --> 00:25:34,200

rights it doesn't track the conspiracy

581

00:25:39,049 --> 00:25:37,320

theorists in my case I write a lot about

582

00:25:41,900 --> 00:25:39,059

vaccination or at least I have up until

583

00:25:43,990 --> 00:25:41,910

this point and so if those comment

584

00:25:47,600 --> 00:25:44,000

threads tend to get very convoluted and

585

00:25:49,070 --> 00:25:47,610

eventually result in people just calling

586

00:25:51,950 --> 00:25:49,080

each other names and say do you want a

587

00:25:54,490 --> 00:25:51,960

biscuit which actually got one commenter

588

00:25:57,020 --> 00:25:54,500

badge Jason Brown who's a friend of mine

589

00:25:59,289 --> 00:25:57,030

was teaching an anti Baxter and just

590

00:26:01,970 --> 00:25:59,299

kept saying do you want a biscuit

591

00:26:03,919 --> 00:26:01,980

apparently thats against the community

592

00:26:06,530 --> 00:26:03,929

guidelines from for comments on the

593

00:26:12,700 --> 00:26:06,540

conversation so it was maybe bother for

594

00:26:16,490 --> 00:26:12,710

your thong so those comments not removed

595

00:26:17,870 --> 00:26:16,500

but yeah I think I'm really I'm really

596

00:26:19,310 --> 00:26:17,880

impressed to be in this book also

597

00:26:22,700 --> 00:26:19,320

because there are so many people in here

598

00:26:24,020 --> 00:26:22,710

who I respect and who have written some

599

00:26:25,580 --> 00:26:24,030

really really great stuff which I'm

600

00:26:28,010 --> 00:26:25,590

proud to give to my debt for Christmas

601
00:26:30,140 --> 00:26:28,020
or you know other people without them

602
00:26:33,020 --> 00:26:30,150
having to say what is that jag and stuff

603
00:26:35,049 --> 00:26:33,030
that you do so um yeah thanks to

604
00:26:37,549 --> 00:26:35,059
everyone who came thanks to Warren for

605
00:26:41,680 --> 00:26:37,559
organizing today and take stuff on for

606
00:26:52,450 --> 00:26:50,649
a little sign books if you want dr.

607
00:26:55,240 --> 00:26:52,460
Rachel Dunlop is one of Australia's

608
00:26:56,639 --> 00:26:55,250
foremost media commentators in matters

609
00:26:59,200 --> 00:26:56,649
concerning so-called alternative

610
00:27:02,980 --> 00:26:59,210
medicine she is appeared on national

611
00:27:05,289 --> 00:27:02,990
radio and national television dr. H E is

612
00:27:09,249 --> 00:27:05,299
available for interviews and you can

613
00:27:16,110 --> 00:27:09,259

contact her at Rachel at skeptic zone

614

00:27:19,930 --> 00:27:18,789

hello skeptics on listeners this is

615

00:27:22,090 --> 00:27:19,940

susan goreck from the guerrilla

616

00:27:24,400 --> 00:27:22,100

skepticism on wikipedia and skeptic

617

00:27:25,840 --> 00:27:24,410

action projects thought I'd drop in and

618

00:27:27,640 --> 00:27:25,850

give you a few updates concerning

619

00:27:30,669 --> 00:27:27,650

Wikipedia editors that have come from

620

00:27:32,890 --> 00:27:30,679

this podcast we've seen for skeptic zone

621

00:27:35,350 --> 00:27:32,900

listeners join the team to English

622

00:27:37,510 --> 00:27:35,360

editors Luke Freeman and Caitlin who

623

00:27:40,210 --> 00:27:37,520

just joined last week you'll rich in

624

00:27:42,130 --> 00:27:40,220

German editor incest Lana a Russian one

625

00:27:44,289 --> 00:27:42,140

because of these people we have greatly

626
00:27:46,870 --> 00:27:44,299
improved or created the young Australian

627
00:27:49,570 --> 00:27:46,880
skeptics Australian vaccination network

628
00:27:52,870 --> 00:27:49,580
robert Llewellyn Christopher Lord

629
00:27:55,409 --> 00:27:52,880
Monckton the budget NASA Leo egg way

630
00:27:57,820 --> 00:27:55,419
Paul Kurtz and cold reading pages

631
00:27:59,380 --> 00:27:57,830
because of all this work these editors

632
00:28:01,870 --> 00:27:59,390
have also been adding to or correcting

633
00:28:03,400 --> 00:28:01,880
lots more smaller edits including

634
00:28:05,830 --> 00:28:03,410
proofreading and supporting other team

635
00:28:08,169 --> 00:28:05,840
members not bad for a handful of editors

636
00:28:10,870 --> 00:28:08,179
I've been very impressed with a skeptic

637
00:28:12,940 --> 00:28:10,880
zone podcast the quality of activism in

638
00:28:14,470 --> 00:28:12,950

support of science education stands out

639

00:28:16,060 --> 00:28:14,480

from most other podcasts that mainly

640

00:28:18,280 --> 00:28:16,070

just talk about what is happening in the

641

00:28:19,690 --> 00:28:18,290

news so it follows that the listeners

642

00:28:21,370 --> 00:28:19,700

the skeptic zone would be more

643

00:28:23,440 --> 00:28:21,380

interested in activism in science

644

00:28:25,870 --> 00:28:23,450

education as well so I really hope to

645

00:28:27,580 --> 00:28:25,880

hear from more of you I want to mention

646

00:28:29,919 --> 00:28:27,590

just a couple more updates from the team

647

00:28:32,320 --> 00:28:29,929

in the last month we release the Spanish

648

00:28:35,049 --> 00:28:32,330

page for dr. Eugenie Scott and the Dutch

649

00:28:37,720 --> 00:28:35,059

team with several new pages 14 Lawrence

650

00:28:40,180 --> 00:28:37,730

Krauss Pascal's wager Neil deGrasse

651
00:28:42,640 --> 00:28:40,190
Tyson and the Scotsman Archie Cochrane

652
00:28:44,680 --> 00:28:42,650
our intention is not only to improve

653
00:28:46,960 --> 00:28:44,690
scientific skepticism on Wikipedia in

654
00:28:49,630 --> 00:28:46,970
all languages but to have the backs of

655
00:28:51,580 --> 00:28:49,640
our spokespeople in all languages Krauss

656
00:28:54,370 --> 00:28:51,590
will soon be in a movie with Dawkins

657
00:28:56,620 --> 00:28:54,380
called the unbelievers in tysons cosmos

658
00:28:58,450 --> 00:28:56,630
series will be released in 2014 I'm

659
00:29:00,549 --> 00:28:58,460
hoping that the public will become

660
00:29:02,289 --> 00:29:00,559
enthusiastic for science and want to

661
00:29:04,240 --> 00:29:02,299
know more about these people they will

662
00:29:05,470 --> 00:29:04,250
turn to Wikipedia and we want to be

663
00:29:07,210 --> 00:29:05,480

waiting for them with well written

664

00:29:09,400 --> 00:29:07,220

articles that show their involvement in

665

00:29:11,710 --> 00:29:09,410

our community these are our people and

666

00:29:14,110 --> 00:29:11,720

we need to have their backs please join

667

00:29:18,760 --> 00:29:14,120

us we trained a mentor write to us at

668

00:29:21,110 --> 00:29:18,770

gso w team @ gmail.com and thank you for

669

00:29:23,060 --> 00:29:21,120

all your support skeptic zone

670

00:29:24,549 --> 00:29:23,070

you've argued against the same woo so

671

00:29:27,049 --> 00:29:24,559

many times you can do it in your sleep

672

00:29:29,180 --> 00:29:27,059

we're trying to stop the nonsense one

673

00:29:31,940 --> 00:29:29,190

person at a time join guerrilla

674

00:29:33,740 --> 00:29:31,950

skepticism on Wikipedia help us make

675

00:29:36,110 --> 00:29:33,750

sure the best skeptical information is

676
00:29:39,380 --> 00:29:36,120
always at everyone's fingertips we need

677
00:29:41,720 --> 00:29:39,390
writers editors translators we need you

678
00:29:44,810 --> 00:29:41,730
and take as much or as little time as

679
00:29:46,970 --> 00:29:44,820
you can give us help us make Wikipedia

680
00:29:48,380 --> 00:29:46,980
as accurate as it can be and you'll

681
00:29:51,830 --> 00:29:48,390
literally be helping people while you

682
00:29:53,990 --> 00:29:51,840
sleep to join us or find out more send a

683
00:29:57,700 --> 00:29:54,000
facebook friend request to susan Berbick

684
00:30:15,210 --> 00:29:57,710
that's ger be IC guerrilla skepticism

685
00:30:20,080 --> 00:30:17,530
alright it's George and Paul until you

686
00:30:21,490 --> 00:30:20,090
Eon 13 13 32 you're welcome to give us a

687
00:30:23,530 --> 00:30:21,500
call anytime you like anything at all

688
00:30:25,600 --> 00:30:23,540

you like to talk about we're kicking off

689

00:30:27,970 --> 00:30:25,610

the program with a truly Sol defining

690

00:30:29,560 --> 00:30:27,980

defining story today mind body and

691

00:30:31,810 --> 00:30:29,570

spirit festival is on down at darling

692

00:30:33,790 --> 00:30:31,820

harbour there was actually was quite a

693

00:30:35,410 --> 00:30:33,800

good photo very good photo in the Sydney

694

00:30:37,180 --> 00:30:35,420

Morning Herald this week of all these

695

00:30:38,770 --> 00:30:37,190

people sitting at the tables down there

696

00:30:41,380 --> 00:30:38,780

having their fortunes read at

697

00:30:43,600 --> 00:30:41,390

thirty-five dollars a pop and apparently

698

00:30:45,730 --> 00:30:43,610

one woman I say in the story did the

699

00:30:46,900 --> 00:30:45,740

full hour consultation and it was 70

700

00:30:50,380 --> 00:30:46,910

bucks so apparently sit there for about

701
00:30:51,280 --> 00:30:50,390
30 minutes for about \$35 I can be

702
00:30:53,080 --> 00:30:51,290
cheaper to throw out in the gutter

703
00:30:54,820 --> 00:30:53,090
because I don't see the trailer for the

704
00:30:56,350 --> 00:30:54,830
hour wouldn't even give you 60 or

705
00:30:57,940 --> 00:30:56,360
something Omega be cheaper just to throw

706
00:30:59,530 --> 00:30:57,950
your money away like walking would be

707
00:31:01,000 --> 00:30:59,540
anyway we're going to talk to Richard

708
00:31:03,760 --> 00:31:01,010
Saunders from the Australian skeptics

709
00:31:05,290 --> 00:31:03,770
about about this fortune telling and why

710
00:31:07,030 --> 00:31:05,300
people believe in it and how these

711
00:31:09,490 --> 00:31:07,040
people do it you're there Richard hello

712
00:31:11,190 --> 00:31:09,500
the day after day Richard I know first

713
00:31:13,030 --> 00:31:11,200

of all we must ask you how your big

714

00:31:14,590 --> 00:31:13,040

skeptics thing went the other week when

715

00:31:16,420 --> 00:31:14,600

you were trying that was at mass suicide

716

00:31:18,790 --> 00:31:16,430

with thermal remedies but with

717

00:31:21,160 --> 00:31:18,800

homeopathic medicine whatever year where

718

00:31:23,440 --> 00:31:21,170

we scoffed boxes and boxes of sleeping

719

00:31:25,570 --> 00:31:23,450

pills which we bought from a pharmacy

720

00:31:27,430 --> 00:31:25,580

and for some reason we didn't fall

721

00:31:29,560 --> 00:31:27,440

asleep or feel ill we had a bit of a

722

00:31:31,360 --> 00:31:29,570

sugar rush I guess mm-hmm so I don't

723

00:31:32,980 --> 00:31:31,370

know what to say it was it a success or

724

00:31:34,600 --> 00:31:32,990

a failure we are all still alive so in

725

00:31:37,420 --> 00:31:34,610

that respect it's a successful failure

726

00:31:39,640 --> 00:31:37,430

all right it's you so what they're

727

00:31:42,160 --> 00:31:39,650

really doing is selling sugar sugar

728

00:31:43,570 --> 00:31:42,170

people for about a thousand times the

729

00:31:45,640 --> 00:31:43,580

price of what it should be a good

730

00:31:47,080 --> 00:31:45,650

estimation i also bought a pack of the

731

00:31:48,760 --> 00:31:47,090

jelly beans while they're at the same

732

00:31:50,020 --> 00:31:48,770

time and you get a lot more bang for

733

00:31:52,150 --> 00:31:50,030

your buck from paoli jellybeans

734

00:31:55,330 --> 00:31:52,160

jellybeans yeah yeah they taste better

735

00:31:56,860 --> 00:31:55,340

now these are people down at this mind

736

00:31:59,320 --> 00:31:56,870

body and spirit thing wrong and doing

737

00:32:01,480 --> 00:31:59,330

the fortune-telling the the people who

738

00:32:03,070 --> 00:32:01,490

had their photos taken and paid their 35

739

00:32:04,570 --> 00:32:03,080

bucks they were all nodding their head

740

00:32:06,940 --> 00:32:04,580

and saying yes well they knew all about

741

00:32:08,680 --> 00:32:06,950

me and I was amazed that some of these

742

00:32:10,570 --> 00:32:08,690

people seem to know everything about me

743

00:32:12,040 --> 00:32:10,580

how do they do that well it's it's

744

00:32:13,810 --> 00:32:12,050

strange you could fish with you should

745

00:32:15,370 --> 00:32:13,820

talk to me about this because I'm

746

00:32:17,470 --> 00:32:15,380

getting something over the telephone at

747

00:32:20,110 --> 00:32:17,480

the moment from you right and I sensed

748

00:32:22,030 --> 00:32:20,120

it you know there's someone I know is it

749

00:32:24,670 --> 00:32:22,040

a colleague maybe who doesn't really

750

00:32:26,350 --> 00:32:24,680

appreciate you better be right now you

751

00:32:28,570 --> 00:32:26,360

just said better be right

752

00:32:30,670 --> 00:32:28,580

out of your head yeah and I also sense

753

00:32:32,470 --> 00:32:30,680

that there's a you know there's a family

754

00:32:34,750 --> 00:32:32,480

secret down there but I won't pry but I

755

00:32:36,610 --> 00:32:34,760

don't owe them out together again you're

756

00:32:39,610 --> 00:32:36,620

nodding you can see where I'm going with

757

00:32:41,140 --> 00:32:39,620

it yeah they're called the statements

758

00:32:43,540 --> 00:32:41,150

it's a broad definition of what they are

759

00:32:46,630 --> 00:32:43,550

there are a lot of statements aimed at

760

00:32:48,340 --> 00:32:46,640

getting you to agree with me now if a

761

00:32:50,710 --> 00:32:48,350

lady comes along for a psychic reading

762

00:32:52,810 --> 00:32:50,720

one of the classic ones would be

763

00:32:54,010 --> 00:32:52,820

something you know you look at the cards

764

00:32:55,570 --> 00:32:54,020

we look at the crystal ball you look

765

00:32:57,370 --> 00:32:55,580

into their eyes and you're a nice

766

00:32:59,470 --> 00:32:57,380

sympathetic person and the person who's

767

00:33:01,060 --> 00:32:59,480

paid their money haven't paid their

768

00:33:03,010 --> 00:33:01,070

money because they're a skeptic they've

769

00:33:04,780 --> 00:33:03,020

paid their money because they believe

770

00:33:06,340 --> 00:33:04,790

fully believe they're in for psychic

771

00:33:08,470 --> 00:33:06,350

reading right so that's exactly what

772

00:33:10,690 --> 00:33:08,480

they expect and if they if the psychic

773

00:33:12,550 --> 00:33:10,700

says to them something like you know you

774

00:33:15,370 --> 00:33:12,560

are worried about something and then

775

00:33:16,960 --> 00:33:15,380

pauses that gives the person that chance

776

00:33:18,250 --> 00:33:16,970

to say well yes I'm you're right i'm

777

00:33:20,830 --> 00:33:18,260

worried about this or I'm worried about

778

00:33:22,630 --> 00:33:20,840

that and if there's no response from

779

00:33:24,640 --> 00:33:22,640

what the psychic might say yes I think

780

00:33:26,680 --> 00:33:24,650

it's something about health a little

781

00:33:28,570 --> 00:33:26,690

pause the first thing can jump in oh oh

782

00:33:31,120 --> 00:33:28,580

yes my foots gonna drop off I'm worried

783

00:33:32,920 --> 00:33:31,130

about the coming and then they could say

784

00:33:36,340 --> 00:33:32,930

but you haven't even told your husband

785

00:33:37,750 --> 00:33:36,350

yet now can you see the sky but what

786

00:33:41,020 --> 00:33:37,760

about what about Richard when I say

787

00:33:44,530 --> 00:33:41,030

something like and your uncle Bob who

788

00:33:47,080 --> 00:33:44,540

had one leg and guides three months ago

789

00:33:48,460 --> 00:33:47,090

did I go they deck specific know what

790

00:33:50,230 --> 00:33:48,470

happens when you talk to the people

791

00:33:52,030 --> 00:33:50,240

afterwards they say how did you psychic

792

00:33:53,560 --> 00:33:52,040

reading go they'll say it was incredible

793

00:33:56,980 --> 00:33:53,570

they knew all about Uncle Bob and his

794

00:33:58,540 --> 00:33:56,990

one leg yeah we're in in fact when these

795

00:33:59,590 --> 00:33:58,550

have been recorded and played back and

796

00:34:01,660 --> 00:33:59,600

you actually listened to what was said

797

00:34:03,910 --> 00:34:01,670

it was something like I'm sensing an

798

00:34:05,560 --> 00:34:03,920

older relative here on your father's

799

00:34:08,830 --> 00:34:05,570

side and I go oh yeah Uncle Bob yeah

800

00:34:11,140 --> 00:34:08,840

they say Uncle Bob and and and they had

801
00:34:13,870 --> 00:34:11,150
some problem walking my god he had one

802
00:34:15,640 --> 00:34:13,880
like now what happens is people's

803
00:34:16,840 --> 00:34:15,650
memories of shocking memory is not a

804
00:34:19,480 --> 00:34:16,850
good thing and they will remember

805
00:34:21,580 --> 00:34:19,490
clearly the psychic thing I can see

806
00:34:23,620 --> 00:34:21,590
uncle bottle here with one leg now my

807
00:34:26,110 --> 00:34:23,630
mother always tells me this story and

808
00:34:27,580 --> 00:34:26,120
and she's now in her mid 80s but she's

809
00:34:29,260 --> 00:34:27,590
always told this story about i think was

810
00:34:32,140 --> 00:34:29,270
during world war two and she was I think

811
00:34:34,300 --> 00:34:32,150
she was just married my dad and they

812
00:34:36,610 --> 00:34:34,310
went to one of those fortune tellers at

813
00:34:38,620 --> 00:34:36,620

some show and dad was standing outside

814

00:34:40,120 --> 00:34:38,630

just outside the tent and the woman's

815

00:34:42,010 --> 00:34:40,130

reading mums fortune and she looked

816

00:34:43,930 --> 00:34:42,020

all of a sudden said who's that man out

817

00:34:46,210 --> 00:34:43,940

there and she said that's my husband he

818

00:34:48,010 --> 00:34:46,220

the woman said that I can't go anymore I

819

00:34:49,300 --> 00:34:48,020

can't tell you anymore and mothers

820

00:34:51,490 --> 00:34:49,310

always remember that as though there

821

00:34:53,380 --> 00:34:51,500

must have been some evil presence or

822

00:34:55,960 --> 00:34:53,390

sorrow is that is that a common sort of

823

00:34:58,450 --> 00:34:55,970

thing they did I'm I haven't heard that

824

00:35:00,820 --> 00:34:58,460

one happening too much because last

825

00:35:02,440 --> 00:35:00,830

thing a lot of these people want to do

826
00:35:04,150 --> 00:35:02,450
is actually give somebody an unpleasant

827
00:35:06,190 --> 00:35:04,160
experience while giving them a reading

828
00:35:08,710 --> 00:35:06,200
they want to make it interesting and

829
00:35:09,970 --> 00:35:08,720
sincere and happy and and a lot of

830
00:35:11,590 --> 00:35:09,980
people make the mistake that these

831
00:35:14,410 --> 00:35:11,600
psychics down at the mind-body-spirit

832
00:35:16,360 --> 00:35:14,420
festival all a bunch of con artists it's

833
00:35:18,760 --> 00:35:16,370
my firm opinion that there would be

834
00:35:20,110 --> 00:35:18,770
you'd be hard to find a con artist down

835
00:35:22,180 --> 00:35:20,120
there you what you find us since

836
00:35:23,890 --> 00:35:22,190
fearlessness and steer people who

837
00:35:26,350 --> 00:35:23,900
genuinely believe what they're doing

838
00:35:28,330 --> 00:35:26,360

that was my next question Richard did I

839

00:35:32,620 --> 00:35:28,340

really can reduce my limit yeah me

840

00:35:34,210 --> 00:35:32,630

please oh my i might have powers I'm

841

00:35:38,110 --> 00:35:34,220

real by the way I should have made that

842

00:35:40,560 --> 00:35:38,120

that I really honestly believe that what

843

00:35:43,360 --> 00:35:40,570

they're doing is I possess something

844

00:35:45,730 --> 00:35:43,370

different sure and it's very easy to

845

00:35:48,880 --> 00:35:45,740

understand why why because then what

846

00:35:51,160 --> 00:35:48,890

simple minded so not not at all aspects

847

00:35:53,320 --> 00:35:51,170

what happens is somebody will come along

848

00:35:55,780 --> 00:35:53,330

to them for a psychic reading and I sit

849

00:35:58,120 --> 00:35:55,790

down and the person again as I said

850

00:35:59,980 --> 00:35:58,130

they're expecting a psychic experience

851
00:36:01,120 --> 00:35:59,990
so they react as if they have a dislike

852
00:36:03,610 --> 00:36:01,130
experience and the person giving

853
00:36:05,050 --> 00:36:03,620
yridians the reading gets only positive

854
00:36:06,550 --> 00:36:05,060
feedback from them and they walk away

855
00:36:09,010 --> 00:36:06,560
saying you're wonderful you've helped me

856
00:36:11,530 --> 00:36:09,020
you saw these things and the person can

857
00:36:13,450 --> 00:36:11,540
really fall for their own routine came

858
00:36:15,190 --> 00:36:13,460
really believe in that said there's no I

859
00:36:16,420 --> 00:36:15,200
I heard the other day listening to a

860
00:36:18,960 --> 00:36:16,430
radio interview and I think it was dr.

861
00:36:21,760 --> 00:36:18,970
Carlos Lee hmm and he was saying that

862
00:36:23,710 --> 00:36:21,770
people who say they can see auras you

863
00:36:25,390 --> 00:36:23,720

know the colored or and learn people and

864

00:36:26,890 --> 00:36:25,400

they actually have some sort of visual

865

00:36:28,870 --> 00:36:26,900

impairment well there's some sort of

866

00:36:30,340 --> 00:36:28,880

brain can do here yeah that's true I

867

00:36:33,430 --> 00:36:30,350

mean I actually didn't see it but it's

868

00:36:36,030 --> 00:36:33,440

not there well some people see sounds or

869

00:36:40,590 --> 00:36:36,040

hear taste or all you know century

870

00:36:43,750 --> 00:36:40,600

confusion like that yeah it's a very odd

871

00:36:45,400 --> 00:36:43,760

situation a lot of the people in these

872

00:36:47,230 --> 00:36:45,410

sort of the in the New Age movement to

873

00:36:48,820 --> 00:36:47,240

say they can see auras around people I

874

00:36:51,400 --> 00:36:48,830

you know I really have to seriously

875

00:36:53,400 --> 00:36:51,410

question that every time it's been

876

00:36:55,380 --> 00:36:53,410

tested by having people stand behind

877

00:36:57,060 --> 00:36:55,390

partitions and they say can you see the

878

00:36:58,410 --> 00:36:57,070

order over the top of the petition and

879

00:37:02,160 --> 00:36:58,420

they oh yes there it is and there's

880

00:37:03,690 --> 00:37:02,170

nobody there something so yes I i think

881

00:37:05,580 --> 00:37:03,700

really medically there are some people

882

00:37:06,990 --> 00:37:05,590

who sees some pretty pretty strange

883

00:37:08,760 --> 00:37:07,000

thing or what do you seem to be saying

884

00:37:10,260 --> 00:37:08,770

is that the people who say they can sit

885

00:37:13,230 --> 00:37:10,270

you know the genuine people who say they

886

00:37:14,910 --> 00:37:13,240

can see the aura can actually see it but

887

00:37:16,650 --> 00:37:14,920

it's not actually there that's nothing

888

00:37:18,300 --> 00:37:16,660

to do with the brain waves and their

889

00:37:20,310 --> 00:37:18,310

vision that's exactly right there is no

890

00:37:21,960 --> 00:37:20,320

as far as we've known from all

891

00:37:25,320 --> 00:37:21,970

investigation there's actually no such

892

00:37:27,210 --> 00:37:25,330

thing as an aura hanging around

893

00:37:28,740 --> 00:37:27,220

people in multi colors in an energy

894

00:37:33,210 --> 00:37:28,750

field only told me how smile looked a

895

00:37:36,180 --> 00:37:33,220

bit purple so well Richard so on a very

896

00:37:38,730 --> 00:37:36,190

serious minute so someone who was a

897

00:37:41,100 --> 00:37:38,740

schizophrenic or mildly schizophrenic

898

00:37:43,440 --> 00:37:41,110

who did actually see things could they

899

00:37:46,560 --> 00:37:43,450

without medical help could buy interpret

900

00:37:49,110 --> 00:37:46,570

themselves as being a psychic a psychic

901
00:37:50,910 --> 00:37:49,120
I possibly i don't know of any any

902
00:37:52,770 --> 00:37:50,920
specific examples but it would be

903
00:37:54,780 --> 00:37:52,780
something that and then how could you

904
00:37:56,520 --> 00:37:54,790
blame them if they did all right totally

905
00:37:58,530 --> 00:37:56,530
understandable yeah now what about these

906
00:37:59,940 --> 00:37:58,540
people and we've got you know fair

907
00:38:02,580 --> 00:37:59,950
trading and all sorts of things they're

908
00:38:04,170 --> 00:38:02,590
taking 35 barks yeah to read somebody's

909
00:38:05,850 --> 00:38:04,180
fortune how can they prove that they're

910
00:38:07,950 --> 00:38:05,860
doing it isn't that isn't that some sort

911
00:38:09,780 --> 00:38:07,960
of fraud well that's a very good

912
00:38:11,970 --> 00:38:09,790
question is it some sort of fraud happy

913
00:38:14,850 --> 00:38:11,980

if if they're claiming if they're

914

00:38:17,510 --> 00:38:14,860

claiming they can have special knowledge

915

00:38:20,310 --> 00:38:17,520

of somebody from beyond the grave or

916

00:38:22,850 --> 00:38:20,320

magical insights from another dimension

917

00:38:25,320 --> 00:38:22,860

which I guess that's what psychics do

918

00:38:27,750 --> 00:38:25,330

then yes they haven't been able to prove

919

00:38:29,250 --> 00:38:27,760

that yet but i think the consumer

920

00:38:31,770 --> 00:38:29,260

affairs take the opinion now they've

921

00:38:33,390 --> 00:38:31,780

just got better things to do and i would

922

00:38:35,610 --> 00:38:33,400

assume that if the person walked away

923

00:38:37,920 --> 00:38:35,620

happy you know that's it then one way

924

00:38:39,570 --> 00:38:37,930

delighted what why how come there's a

925

00:38:41,430 --> 00:38:39,580

con that seems as you said the other

926

00:38:44,790 --> 00:38:41,440

they haven't had the fortune to skeptics

927

00:38:47,160 --> 00:38:44,800

happy and they're okay so everyone happy

928

00:38:48,990 --> 00:38:47,170

well quite honestly when i go i was

929

00:38:50,880 --> 00:38:49,000

there yesterday and i always go to mind

930

00:38:53,010 --> 00:38:50,890

body spirit I had a great time I love

931

00:38:55,080 --> 00:38:53,020

her because I learned so much I don't

932

00:38:57,840 --> 00:38:55,090

around her hanging people I asked them

933

00:38:59,490 --> 00:38:57,850

how does this work what do you think did

934

00:39:00,870 --> 00:38:59,500

you have your fortune told I've had my

935

00:39:02,109 --> 00:39:00,880

fortune told more times than I've had

936

00:39:05,289 --> 00:39:02,119

off in and automate every

937

00:39:06,940 --> 00:39:05,299

I was different and I bet it will do it

938

00:39:08,680 --> 00:39:06,950

every time I look wonderful every time

939

00:39:10,779 --> 00:39:08,690

but when it's over I actually sit down

940

00:39:12,609 --> 00:39:10,789

with the psychic or whatever and and go

941

00:39:15,279 --> 00:39:12,619

over everything they said and point out

942

00:39:16,989 --> 00:39:15,289

to them what in the in fact was

943

00:39:18,609 --> 00:39:16,999

happening psychologically yeah and a lot

944

00:39:20,950 --> 00:39:18,619

of times they're quite I bet you give

945

00:39:23,019 --> 00:39:20,960

them a day yeah Richard I'm prepared to

946

00:39:25,720 --> 00:39:23,029

pay you double if you can tell me now

947

00:39:27,400 --> 00:39:25,730

the more family secret because I as you

948

00:39:29,589 --> 00:39:27,410

mentioned earlier i'm quite intrigued

949

00:39:31,690 --> 00:39:29,599

about this well i mean on what is it I

950

00:39:33,999 --> 00:39:31,700

mean I I can't imagine any amount of

951
00:39:36,400 --> 00:39:34,009
money would coax at Harley I'm far to

952
00:39:38,559 --> 00:39:36,410
this great you are accrue epsilon to

953
00:39:40,299 --> 00:39:38,569
answer a Richard the I've read some

954
00:39:41,559 --> 00:39:40,309
figures and you would you study this far

955
00:39:43,450 --> 00:39:41,569
more than i would of course but I've

956
00:39:45,849 --> 00:39:43,460
written figures where it's over half the

957
00:39:47,529 --> 00:39:45,859
population believe in this yeah that

958
00:39:49,390 --> 00:39:47,539
wouldn't surprise me at all I mean

959
00:39:51,730 --> 00:39:49,400
people don't have the wherewithal to

960
00:39:53,170 --> 00:39:51,740
know I mean I hear about psychics and

961
00:39:55,690 --> 00:39:53,180
they don't have no terribly much about

962
00:39:57,970 --> 00:39:55,700
it but unless you're someone like sort

963
00:40:00,220 --> 00:39:57,980

of involved in the research side of it

964

00:40:01,930 --> 00:40:00,230

like I am then you learn about the

965

00:40:04,059 --> 00:40:01,940

psychology I but then you learn about

966

00:40:07,120 --> 00:40:04,069

the thousands of thousands of tests have

967

00:40:08,799 --> 00:40:07,130

been done with negative results and you

968

00:40:10,989 --> 00:40:08,809

learn about you know sometimes yes

969

00:40:12,549 --> 00:40:10,999

there's trickery involved like people

970

00:40:14,400 --> 00:40:12,559

pretending to bend spoons and whatnot

971

00:40:17,170 --> 00:40:14,410

now an important thing is to actually

972

00:40:19,479 --> 00:40:17,180

show people how things work and there's

973

00:40:22,450 --> 00:40:19,489

a group called mystery investigators mr.

974

00:40:24,579 --> 00:40:22,460

investec mystery investigators calm and

975

00:40:26,319 --> 00:40:24,589

they actually teach people how divining

976

00:40:29,499 --> 00:40:26,329

really works one the physics behind

977

00:40:31,420 --> 00:40:29,509

walking over hot coals is so you need to

978

00:40:34,089 --> 00:40:31,430

learn a little bit before you can make

979

00:40:36,640 --> 00:40:34,099

the comment i was in Bangkok recently

980

00:40:39,579 --> 00:40:36,650

and at the feet of the the Vickery

981

00:40:42,130 --> 00:40:39,589

reclining buddha which is just huge they

982

00:40:44,349 --> 00:40:42,140

have people who tell your fortune all

983

00:40:46,089 --> 00:40:44,359

books the whole lot the whole outfit and

984

00:40:48,190 --> 00:40:46,099

these people honestly believe what they

985

00:40:49,809 --> 00:40:48,200

do do a living and this blog told me

986

00:40:51,819 --> 00:40:49,819

everything that I wanted to hear oh

987

00:40:53,380 --> 00:40:51,829

there you go my love I'm like well

988

00:40:55,329 --> 00:40:53,390

everything that was true or everything

989

00:40:57,339 --> 00:40:55,339

you want to do I don't know yeah it's

990

00:41:00,130 --> 00:40:57,349

pretty because the life line was long or

991

00:41:01,989 --> 00:41:00,140

money line was long by only my only run

992

00:41:04,870 --> 00:41:01,999

in with a palm reader you'll love this

993

00:41:05,090 --> 00:41:04,880

one Richard here live on radio para and

994

00:41:11,900 --> 00:41:05,100

he

995

00:41:13,730 --> 00:41:11,910

people don't don't appreciate his

996

00:41:15,470 --> 00:41:13,740

happiness ahead in your life then he

997

00:41:18,860 --> 00:41:15,480

looked at my hand and he said you are

998

00:41:21,530 --> 00:41:18,870

about to go on a very very long journey

999

00:41:23,840 --> 00:41:21,540

oh my god I said I've just booked to go

1000

00:41:25,310 --> 00:41:23,850

to America well there you go when he

1001
00:41:27,560 --> 00:41:25,320
left the studio I realized yes it was

1002
00:41:33,290 --> 00:41:27,570
about two weeks before Christmas a lot

1003
00:41:35,180 --> 00:41:33,300
of people that's the classic example of

1004
00:41:37,460 --> 00:41:35,190
remembering the hits and forgetting them

1005
00:41:39,110 --> 00:41:37,470
is good to talk to your engineer always

1006
00:41:41,060 --> 00:41:39,120
good to talk no trouble guys thanks

1007
00:41:43,280 --> 00:41:41,070
right thanks Ryan Richard Saunders from

1008
00:41:44,600 --> 00:41:43,290
the Australian skeptics and if you're if

1009
00:41:46,250 --> 00:41:44,610
you're up for the mind body and spirit

1010
00:41:47,960 --> 00:41:46,260
festival is on that darling harbour

1011
00:41:49,660 --> 00:41:47,970
today is the last day if you want happy

1012
00:41:52,400 --> 00:41:49,670
fortune told but you'd better be quick

1013
00:41:58,220 --> 00:41:52,410

26 pass one with George and Paul until

1014

00:42:02,820 --> 00:42:01,020

virtual skeptics is a weekly web show in

1015

00:42:05,130 --> 00:42:02,830

which we discuss the latest news in

1016

00:42:06,600 --> 00:42:05,140

skepticism whether it's a new case of

1017

00:42:08,820 --> 00:42:06,610

spontaneous human combustion a

1018

00:42:11,040 --> 00:42:08,830

conspiracy theory the latest update on

1019

00:42:12,690 --> 00:42:11,050

the upcoming robot apocalypse tech news

1020

00:42:15,180 --> 00:42:12,700

for skeptics are the latest wacky

1021

00:42:17,550 --> 00:42:15,190

religious claim we cover it all we

1022

00:42:20,220 --> 00:42:17,560

record the show live as a Google+ on-air

1023

00:42:22,050 --> 00:42:20,230

hang out so join us in our host Brian

1024

00:42:24,150 --> 00:42:22,060

Gregory for an hour of mostly

1025

00:42:27,060 --> 00:42:24,160

intelligent talk every wednesday at

1026
00:42:30,060 --> 00:42:27,070
eight pm eastern US time watch us at

1027
00:42:32,730 --> 00:42:30,070
virtual skeptics calm and participate in

1028
00:42:35,670 --> 00:42:32,740
the show on our hashtag virtual skeptics

1029
00:42:40,670 --> 00:42:35,680
the virtual skeptics it's like meet the

1030
00:42:46,109 --> 00:42:43,500
this week in science we saw lab-grown

1031
00:42:48,390 --> 00:42:46,119
glands a centipedes pain relieving

1032
00:42:51,960 --> 00:42:48,400
potential and the link between stress

1033
00:43:02,250 --> 00:42:51,970
and dementia plus why is this volcano so

1034
00:43:03,960 --> 00:43:02,260
special it appears that early Mars may

1035
00:43:06,990 --> 00:43:03,970
have been home to giant exploding

1036
00:43:08,640 --> 00:43:07,000
volcanoes huge irregular shaped craters

1037
00:43:10,530 --> 00:43:08,650
in the northern highlands of Mars may

1038
00:43:12,060 --> 00:43:10,540

have formed a supervolcano similar to

1039

00:43:14,339 --> 00:43:12,070

the one at Yellowstone in the United

1040

00:43:16,680 --> 00:43:14,349

States the rare but highly explosive

1041

00:43:18,540 --> 00:43:16,690

eruptions of a volcano like this may

1042

00:43:19,830 --> 00:43:18,550

have released volatile chemicals that

1043

00:43:22,620 --> 00:43:19,840

would have changed the Martian climate

1044

00:43:25,109 --> 00:43:22,630

and deposited volcanic materials in the

1045

00:43:27,540 --> 00:43:25,119

region this is also a possible source of

1046

00:43:29,280 --> 00:43:27,550

previously unexplained fine-grained

1047

00:43:33,930 --> 00:43:29,290

layered deposits found throughout the

1048

00:43:36,000 --> 00:43:33,940

equatorial region of Mars Japanese

1049

00:43:38,310 --> 00:43:36,010

researchers have bioengineered to

1050

00:43:40,530 --> 00:43:38,320

replacement organs and claim this is the

1051
00:43:43,050 --> 00:43:40,540
next step for regenerative therapy the

1052
00:43:44,490 --> 00:43:43,060
team built a lacrimal gland the tea

1053
00:43:46,800 --> 00:43:44,500
producing gland in the corner of the eye

1054
00:43:49,079 --> 00:43:46,810
and implanted it into an adult mouse

1055
00:43:51,109 --> 00:43:49,089
with a defective gland the replacement

1056
00:43:53,640 --> 00:43:51,119
gland was functional after implantation

1057
00:43:55,710 --> 00:43:53,650
including the production of tears they

1058
00:43:57,450 --> 00:43:55,720
also developed a saliva gland which was

1059
00:43:59,640 --> 00:43:57,460
functional when implanted into a mouse

1060
00:44:01,770 --> 00:43:59,650
this technique could be applied to other

1061
00:44:03,810 --> 00:44:01,780
glands and represents a breakthrough in

1062
00:44:07,920 --> 00:44:03,820
the ability to grow new healthy glands

1063
00:44:09,630 --> 00:44:07,930

in the lab a patent has been approved

1064

00:44:12,060 --> 00:44:09,640

for a method of creating so-called

1065

00:44:13,920 --> 00:44:12,070

designer babies however scientists are

1066

00:44:15,900 --> 00:44:13,930

wary of unintended implications of this

1067

00:44:17,880 --> 00:44:15,910

patent women dealing with a lot of

1068

00:44:19,500 --> 00:44:17,890

stress in middle age may increase their

1069

00:44:22,020 --> 00:44:19,510

risk of developing dementia in later

1070

00:44:24,060 --> 00:44:22,030

life pollution from diesel exhaust fumes

1071

00:44:26,370 --> 00:44:24,070

effects the smells released by a flower

1072

00:44:28,200 --> 00:44:26,380

which confuses honeybees ability to

1073

00:44:29,910 --> 00:44:28,210

recognize them and researchers have

1074

00:44:31,349 --> 00:44:29,920

identified a component of centipede

1075

00:44:35,099 --> 00:44:31,359

venom that could be developed into a

1076

00:44:37,359 --> 00:44:35,109

painkiller as effective as morphine

1077

00:44:40,510 --> 00:44:37,369

this week we've got a question for you

1078

00:44:43,210 --> 00:44:40,520

NASA announced that Mars soil contains a

1079

00:44:45,670 --> 00:44:43,220

surprising amount of water approximately

1080

00:44:49,539 --> 00:44:45,680

how much water can be extracted from 30

1081

00:44:53,589 --> 00:44:49,549

kilograms of martian soil is it 250

1082

00:44:56,859 --> 00:44:53,599

milliliters 500 milliliters 750

1083

00:44:59,529 --> 00:44:56,869

milliliters or 1 liter don't cheat by

1084

00:45:03,370 --> 00:44:59,539

googling tweet us your answer at our i

1085

00:45:05,260 --> 00:45:03,380

underscore a us hashtag weekend sigh and

1086

00:45:07,510 --> 00:45:05,270

we'll tell you the correct answer next

1087

00:45:22,650 --> 00:45:07,520

week that's it for this week in science

1088

00:45:27,850 --> 00:45:25,720

hi I'm Finn and I'm Rebecca and we're

1089

00:45:29,620 --> 00:45:27,860

thus capricorns skipper Collins is an

1090

00:45:31,300 --> 00:45:29,630

Irish podcast by the Dublin skeptics

1091

00:45:32,860 --> 00:45:31,310

society it takes a conversational

1092

00:45:34,120 --> 00:45:32,870

reverent look at science news and

1093

00:45:37,630 --> 00:45:34,130

skeptical topics from an Irish

1094

00:45:41,100 --> 00:45:37,640

perspective you can find us at WWDC

1095

00:45:41,110 --> 00:45:53,120

spirit is strong

1096

00:46:00,120 --> 00:45:55,770

thank you for listening to the skeptic

1097

00:46:01,950 --> 00:46:00,130

zone now I'd like to play something I I

1098

00:46:06,359 --> 00:46:01,960

put in the introduction to the skeptic

1099

00:46:07,830 --> 00:46:06,369

zone about six or seven weeks ago well

1100

00:46:09,690 --> 00:46:07,840

that's all from me at the moment I'm

1101
00:46:12,630 --> 00:46:09,700
just gonna stand up here walk over the

1102
00:46:18,060 --> 00:46:12,640
other side of my office where hello

1103
00:46:19,680 --> 00:46:18,070
sweetie this is Adele hello she keeps me

1104
00:46:21,930 --> 00:46:19,690
company up here in my office sometimes

1105
00:46:25,400 --> 00:46:21,940
and she's rolling on her back looking

1106
00:46:28,320 --> 00:46:25,410
too cute for words yes hello sweetheart

1107
00:46:30,120 --> 00:46:28,330
there we go there I thought I'd just

1108
00:46:32,270 --> 00:46:30,130
give you a little bit of cuteness into

1109
00:46:36,510 --> 00:46:32,280
your life folks what do you say Adele

1110
00:46:38,700 --> 00:46:36,520
there we go well you gonna stay there

1111
00:46:43,550 --> 00:46:38,710
right you stay there Adele lie in the

1112
00:46:45,570 --> 00:46:43,560
Sun on top of my wife my little wardrobe

1113
00:46:47,100 --> 00:46:45,580

well Adele made it onto that

1114

00:46:51,150 --> 00:46:47,110

introduction because it was only just

1115

00:46:54,859 --> 00:46:51,160

discovered that she had dumb I cancer at

1116

00:46:58,109 --> 00:46:54,869

jaw in her jaw and the lump was growing

1117

00:47:00,690 --> 00:46:58,119

and over the following weeks it got

1118

00:47:02,730 --> 00:47:00,700

worse poor little mite she ended up on

1119

00:47:08,910 --> 00:47:02,740

painkillers and she did wonderfully well

1120

00:47:11,700 --> 00:47:08,920

she was still happy and active and more

1121

00:47:15,530 --> 00:47:11,710

or less a normal self until the time

1122

00:47:18,900 --> 00:47:15,540

came which is was a few days ago for her

1123

00:47:22,830 --> 00:47:18,910

so it's been very very sad here I must

1124

00:47:25,620 --> 00:47:22,840

admit and so what I'd like you to do if

1125

00:47:29,160 --> 00:47:25,630

you own a little cat you please just

1126

00:47:32,880 --> 00:47:29,170

give it that extra scratch under the

1127

00:47:37,020 --> 00:47:32,890

chin that would be really nice if you

1128

00:47:40,200 --> 00:47:37,030

could do that and if you own a little

1129

00:47:43,280 --> 00:47:40,210

dog or any animal an extra treat an

1130

00:47:45,840 --> 00:47:43,290

extra pad an extra tickle on the belly

1131

00:47:48,900 --> 00:47:45,850

so if thousands of animals around the

1132

00:47:51,300 --> 00:47:48,910

world each had a little pad or a little

1133

00:47:53,550 --> 00:47:51,310

tickle a little extra treat I think that

1134

00:47:55,109 --> 00:47:53,560

would be something and it really doesn't

1135

00:47:58,890 --> 00:47:55,119

matter when you're listening to this if

1136

00:48:02,580 --> 00:47:58,900

it's 2013 or in years and years to come

1137

00:48:04,990 --> 00:48:02,590

if this podcast survive why not give

1138

00:48:08,110 --> 00:48:05,000

that pet an extra treat an extra pad

1139

00:48:11,770 --> 00:48:08,120

and I'd like to thank some people who

1140

00:48:15,250 --> 00:48:11,780

have been very helpful Travis Roy for

1141

00:48:17,770 --> 00:48:15,260

being there on the text chat for me to

1142

00:48:19,870 --> 00:48:17,780

pour my heart out to Julie ladder who

1143

00:48:21,910 --> 00:48:19,880

gave wonderful advice from a vets point

1144

00:48:25,750 --> 00:48:21,920

of view and it was very much appreciated

1145

00:48:27,550 --> 00:48:25,760

thank you julie and george shrub who has

1146

00:48:30,370 --> 00:48:27,560

kindly given me permission to play the

1147

00:48:34,300 --> 00:48:30,380

following song to end off the skeptic

1148

00:48:36,280 --> 00:48:34,310

zone until next week this is Richard

1149

00:48:49,160 --> 00:48:36,290

Saunders signing off from Sydney

1150

00:48:49,170 --> 00:48:51,350

you

1151

00:49:02,870 --> 00:48:57,860

I don't believe in heaven and I know

1152

00:49:07,580 --> 00:49:02,880

that there's no hell I don't think

1153

00:49:10,690 --> 00:49:07,590

you've gone anywhere and I guess that's

1154

00:49:10,700 --> 00:49:15,150

cuz I want to remember

1155

00:49:15,160 --> 00:49:19,990

the last look in your eyes

1156

00:49:27,800 --> 00:49:25,970

it was the best and worst thing to get

1157

00:49:38,939 --> 00:49:27,810

to say goodbye

1158

00:49:49,020 --> 00:49:42,669

they say we're not supposed to come pre

1159

00:49:53,109 --> 00:49:49,030

him but I want to know more

1160

00:50:01,440 --> 00:49:53,119

with you at the end

1161

00:50:01,450 --> 00:50:05,290

did you know where you were going

1162

00:50:15,359 --> 00:50:11,359

did you like the time you spend I wish

1163

00:50:15,369 --> 00:50:19,930

that's not how it went

1164

00:50:27,000 --> 00:50:25,060

now I know there's no forever but of all

1165

00:50:33,950 --> 00:50:27,010

the hard side

1166

00:50:33,960 --> 00:50:47,950

was as close as one could get to she

1167

00:50:47,960 --> 00:51:01,550

they say were not supposed to understand

1168

00:51:07,710 --> 00:51:06,720

the cars the hotel some would blame the

1169

00:51:15,210 --> 00:51:07,720

deal

1170

00:51:18,210 --> 00:51:15,220

make up stories that never could be real

1171

00:51:24,059 --> 00:51:18,220

open your left we're glad to be back

1172

00:51:31,170 --> 00:51:27,749

I've no need for heaven a shaman shoulda

1173

00:51:42,640 --> 00:51:31,180

loved I prefer what's real and what we

1174

00:51:54,070 --> 00:51:46,390

i'm glad i get to miss you but that you

1175

00:52:00,190 --> 00:51:54,080

can never miss me thinking you wake up

1176

00:52:11,680 --> 00:52:00,200

and see us is your eternity small