

**The Skeptic Zone**  
**Show 377 - 10 Jan 2016**



**SUSPICIOUS  
BEHAVIOUR**

**Jo Alabaster**

1  
00:00:22,210 --> 00:00:09,090  
welcome to the skeptic zone the podcast

2  
00:00:28,339 --> 00:00:24,830  
hello and welcome to the skeptic zone

3  
00:00:31,310 --> 00:00:28,349  
episode number 377 for the tenth of

4  
00:00:33,860 --> 00:00:31,320  
January 2016 Richard Saunders here with

5  
00:00:35,959 --> 00:00:33,870  
you from Sydney Australia coming up

6  
00:00:38,600 --> 00:00:35,969  
coming up on the skeptic zone this week

7  
00:00:42,290 --> 00:00:38,610  
more proof if more proof was needed

8  
00:00:44,569 --> 00:00:42,300  
which is not more proof the skeptics own

9  
00:00:46,430 --> 00:00:44,579  
reporters are second to none Joe

10  
00:00:49,730 --> 00:00:46,440  
alabaster kicks off the show with

11  
00:00:53,330 --> 00:00:49,740  
evidence please talking about a horrible

12  
00:00:56,240 --> 00:00:53,340  
substance really nasty awful substance

13  
00:00:58,970 --> 00:00:56,250

black salv if you haven't heard about

14

00:01:03,560 --> 00:00:58,980

black selves you're probably very lucky

15

00:01:04,999 --> 00:01:03,570

this is a gooey paste that you can I

16

00:01:07,399 --> 00:01:05,009

wouldn't recommend it put on yourself

17

00:01:09,200 --> 00:01:07,409

and the claims are it will cure your

18

00:01:12,080 --> 00:01:09,210

cancer skin cancers and stuff like that

19

00:01:15,770 --> 00:01:12,090

well it doesn't it eats away your skin

20

00:01:18,350 --> 00:01:15,780

and the last mind-body wallet festival I

21

00:01:20,240 --> 00:01:18,360

was in in Sydney in fact Joe alabaster

22

00:01:23,120 --> 00:01:20,250

was with me at the time we came across a

23

00:01:26,780 --> 00:01:23,130

stall selling books on how to make black

24

00:01:30,219 --> 00:01:26,790

selves and selling videos called one

25

00:01:33,160 --> 00:01:30,229

answer to cancer all about black self

26

00:01:36,560 --> 00:01:33,170

horrible stuff avoid it like the plague

27

00:01:38,510 --> 00:01:36,570

Joe alabaster will tell you more at the

28

00:01:40,670 --> 00:01:38,520

top of the show following that it's our

29

00:01:44,210 --> 00:01:40,680

guest reporter all the way from camera

30

00:01:47,120 --> 00:01:44,220

in the acct the Australian Capital

31

00:01:48,920 --> 00:01:47,130

Territory Kevin Davies interviews dr.

32

00:01:52,310 --> 00:01:48,930

Rochelle duvall from the US

33

00:01:55,100 --> 00:01:52,320

Environmental Protection Agency a little

34

00:01:57,320 --> 00:01:55,110

bit of an interesting topic there a

35

00:01:59,960 --> 00:01:57,330

little bit unusual for the skeptic zone

36

00:02:02,719 --> 00:01:59,970

but a nice little report nevertheless

37

00:02:04,640 --> 00:02:02,729

and it just goes to show that if you are

38

00:02:06,620 --> 00:02:04,650

lucky enough to live in Canberra you can

39

00:02:12,229 --> 00:02:06,630

certainly attend many interesting talks

40

00:02:14,240 --> 00:02:12,239

head to ww Canberra skeptic saw a you or

41

00:02:17,360 --> 00:02:14,250

just google Canberra skeptics they've

42

00:02:19,190 --> 00:02:17,370

got talks are all year and social events

43

00:02:22,420 --> 00:02:19,200

and skeptics in the pub and all sorts of

44

00:02:24,979 --> 00:02:22,430

things really active group in Canberra

45

00:02:26,920 --> 00:02:24,989

after that it's a wig in science from

46

00:02:30,290 --> 00:02:26,930

the Royal Institution office too

47

00:02:32,090 --> 00:02:30,300

www are I a US or gay you in the

48

00:02:34,760 --> 00:02:32,100

beautiful city of Adelaide hello dr.

49

00:02:37,310 --> 00:02:34,770

Paul Willis the director of the Royal

50

00:02:40,690 --> 00:02:37,320

Institution of Australia fine scientific

51  
00:02:43,610 --> 00:02:40,700  
outreach group as skeptics own listeners

52  
00:02:46,520 --> 00:02:43,620  
well no than to round off the show

53  
00:02:48,560 --> 00:02:46,530  
Maynard spooky action may not heads once

54  
00:02:51,530 --> 00:02:48,570  
more to skeptics in the pub in Sydney

55  
00:02:54,110 --> 00:02:51,540  
and asked pub goers what do they think

56  
00:02:57,650 --> 00:02:54,120  
of New Year's resolutions and what are

57  
00:02:59,210 --> 00:02:57,660  
their predictions for 2016 thank you to

58  
00:03:01,670 --> 00:02:59,220  
those people who continue to support the

59  
00:03:04,310 --> 00:03:01,680  
skeptic zone it's a listener supported

60  
00:03:06,050 --> 00:03:04,320  
podcast as we might say and thank you to

61  
00:03:08,120 --> 00:03:06,060  
those people who have been buying mr.

62  
00:03:10,790 --> 00:03:08,130  
Katz origami jewelry which also goes

63  
00:03:13,130 --> 00:03:10,800

directly to supporting the skeptic zone

64

00:03:16,340 --> 00:03:13,140

links are on the skeptics own website

65

00:03:19,750 --> 00:03:16,350

skeptics and TV and some new items just

66

00:03:23,240 --> 00:03:19,760

up for sale at the moment I've put a

67

00:03:25,460 --> 00:03:23,250

pendant a resin pendant which is a tiny

68

00:03:27,380 --> 00:03:25,470

little origami book the eye on the

69

00:03:30,230 --> 00:03:27,390

Origin of Species by Charles Darwin and

70

00:03:31,910 --> 00:03:30,240

also some books by Jane Austen I'm going

71

00:03:33,440 --> 00:03:31,920

to increase that soon I might put some

72

00:03:36,650 --> 00:03:33,450

Sherlock Holmes up or something like

73

00:03:39,440 --> 00:03:36,660

that check it out it's all good fun end

74

00:03:42,110 --> 00:03:39,450

it all aids the skeptic zone but now

75

00:03:46,460 --> 00:03:42,120

it's time for me to run downstairs have

76

00:03:48,620 --> 00:03:46,470

a nice cool glass of ginger ale with ice

77

00:03:50,660 --> 00:03:48,630

because it's quite a hot day here in

78

00:03:54,260 --> 00:03:50,670

Sydney today a nice cool glass of ginger

79

00:03:56,360 --> 00:03:54,270

ale and ice while I'm sipping that with

80

00:04:12,790 --> 00:03:56,370

Fred the cat at my feet I hope you enjoy

81

00:04:22,810 --> 00:04:15,320

what we want is some more evidence

82

00:04:22,820 --> 00:04:28,290

hello this is Joe alabaster

83

00:04:32,920 --> 00:04:30,610

when you spot something that's old

84

00:04:35,020 --> 00:04:32,930

concerned it can be worth spending a

85

00:04:37,260 --> 00:04:35,030

couple of minutes filling in a report or

86

00:04:40,240 --> 00:04:37,270

noting it publicly by a social media

87

00:04:43,060 --> 00:04:40,250

little actions such as there's a greater

88

00:04:45,210 --> 00:04:43,070

than no action they do add up and can be

89

00:04:47,620 --> 00:04:45,220

the starting point for greater change

90

00:04:49,750 --> 00:04:47,630

this week I went and had a minor

91

00:04:51,640 --> 00:04:49,760

procedure to remove a lesion after

92

00:04:53,980 --> 00:04:51,650

having a skin cancer check performed

93

00:04:56,470 --> 00:04:53,990

it's highly unlikely that the lesion is

94

00:04:58,450 --> 00:04:56,480

a potentially problematic one but that

95

00:05:01,150 --> 00:04:58,460

can't be completely ruled out unless it

96

00:05:03,280 --> 00:05:01,160

said to pathology and examined this

97

00:05:06,100 --> 00:05:03,290

experience had me thinking about skin

98

00:05:09,400 --> 00:05:06,110

cancer and alternative medicine namely

99

00:05:12,010 --> 00:05:09,410

black salv for those of you not familiar

100

00:05:14,680 --> 00:05:12,020

with black selves also known as blood

101

00:05:16,840 --> 00:05:14,690

route or can seamer it is a horrible

102

00:05:19,510 --> 00:05:16,850

preparation which proponents claim can

103

00:05:22,390 --> 00:05:19,520

draw out cancer cells when applied to

104

00:05:24,580 --> 00:05:22,400

the skin black self preparations

105

00:05:27,870 --> 00:05:24,590

typically contain zinc chloride and

106

00:05:30,970 --> 00:05:27,880

chappell also known as creosote bush and

107

00:05:33,430 --> 00:05:30,980

bloodroot the extract of which is called

108

00:05:37,150 --> 00:05:33,440

sanguinarine an ammonium salt which

109

00:05:39,240 --> 00:05:37,160

attacks and destroys living tissue black

110

00:05:42,970 --> 00:05:39,250

selves are corrosive substances

111

00:05:45,190 --> 00:05:42,980

classified as erotic setia attics or

112

00:05:47,980 --> 00:05:45,200

substances which cause tissue to die and

113

00:05:50,170 --> 00:05:47,990

slop off black self proponents believe

114

00:05:52,540 --> 00:05:50,180

that when this ashy erotic destroys

115

00:05:55,300 --> 00:05:52,550

tissue it is somehow targeting cancer

116

00:05:57,760 --> 00:05:55,310

cells and the when scabs form and fall

117

00:06:01,510 --> 00:05:57,770

off the cancer is being removed from the

118

00:06:03,730 --> 00:06:01,520

body this is sadly very wrong there is

119

00:06:06,100 --> 00:06:03,740

no mechanism by which black self can

120

00:06:08,290 --> 00:06:06,110

mobilize and destroy cancer cells in a

121

00:06:12,130 --> 00:06:08,300

targeted manner the selves merely

122

00:06:14,380 --> 00:06:12,140

damages tissue healthy or not use of

123

00:06:17,050 --> 00:06:14,390

black selves can result in ulceration

124

00:06:19,690 --> 00:06:17,060

infection skin damage deep tissue damage

125

00:06:21,820 --> 00:06:19,700

and muscle damage if you're feeling not

126  
00:06:23,590 --> 00:06:21,830  
too squeamish and want to see the extent

127  
00:06:25,720 --> 00:06:23,600  
of the damage black self can cause

128  
00:06:27,550 --> 00:06:25,730  
google black silver and have a look at

129  
00:06:30,580 --> 00:06:27,560  
either the Google Image Search tab or

130  
00:06:32,290 --> 00:06:30,590  
the black soul Facebook page be warned

131  
00:06:35,470 --> 00:06:32,300  
though you'll see people with huge

132  
00:06:37,870 --> 00:06:35,480  
ulcers large scabs and people who have

133  
00:06:40,510 --> 00:06:37,880  
literal holes in their faces and large

134  
00:06:40,810 --> 00:06:40,520  
areas of tissue missing from arms next

135  
00:06:43,510 --> 00:06:40,820  
and

136  
00:06:45,370 --> 00:06:43,520  
rests it's fairly disturbing frankly

137  
00:06:47,770 --> 00:06:45,380  
both that people believe they're doing

138  
00:06:49,750 --> 00:06:47,780

themselves good by using black self and

139

00:06:52,420 --> 00:06:49,760

that they feel that damaging themselves

140

00:06:54,490 --> 00:06:52,430

in this way is less traumatic than going

141

00:06:56,710 --> 00:06:54,500

to a doctor being examined and

142

00:07:00,520 --> 00:06:56,720

undergoing evidence-based cancer

143

00:07:02,800 --> 00:07:00,530

diagnosis and treatment and here's

144

00:07:05,860 --> 00:07:02,810

another thing which is troublesome many

145

00:07:08,020 --> 00:07:05,870

uses of black self he revert via word of

146

00:07:10,270 --> 00:07:08,030

mouth from other black selves users

147

00:07:13,360 --> 00:07:10,280

naturopaths and other alternative

148

00:07:15,910 --> 00:07:13,370

medicine proponents some decide to use

149

00:07:18,370 --> 00:07:15,920

black selves after a diagnosis from a GP

150

00:07:20,310 --> 00:07:18,380

my own skin cancer doctor has had people

151  
00:07:23,530 --> 00:07:20,320  
ask him about its use much to his dismay

152  
00:07:25,900 --> 00:07:23,540  
while others self-diagnose skin cancers

153  
00:07:30,190 --> 00:07:25,910  
or act on the opinions of unqualified

154  
00:07:31,960 --> 00:07:30,200  
people online there is a reason we have

155  
00:07:33,520 --> 00:07:31,970  
doctors who especially trained in skin

156  
00:07:36,040 --> 00:07:33,530  
cancer detection and treatment and

157  
00:07:39,100 --> 00:07:36,050  
pathology labs who conduct histological

158  
00:07:41,440 --> 00:07:39,110  
examination of tissue samples diagnosis

159  
00:07:43,090 --> 00:07:41,450  
of skin cancer is by no means as simple

160  
00:07:46,600 --> 00:07:43,100  
as looking to the opinion of someone

161  
00:07:48,850 --> 00:07:46,610  
unqualified to do so of course do keep a

162  
00:07:50,920 --> 00:07:48,860  
close eye on your own skin but make an

163  
00:07:53,140 --> 00:07:50,930

appointment with a GP or skin cancer

164

00:07:55,300 --> 00:07:53,150

clinic if you notice anything unusual or

165

00:07:57,010 --> 00:07:55,310

concerning and speak with them about how

166

00:07:58,660 --> 00:07:57,020

regularly it would be appropriate for

167

00:08:01,300 --> 00:07:58,670

you to have your skin checked by

168

00:08:03,130 --> 00:08:01,310

professional two in three Australians

169

00:08:05,200 --> 00:08:03,140

will be diagnosed with skin cancer by

170

00:08:07,510 --> 00:08:05,210

the time they're 70 so this is really

171

00:08:09,580 --> 00:08:07,520

worth keeping on top of to find out more

172

00:08:11,650 --> 00:08:09,590

about reducing risks and screening

173

00:08:13,620 --> 00:08:11,660

there's a lot of useful information on

174

00:08:18,720 --> 00:08:13,630

the cancer councils website at

175

00:08:22,030 --> 00:08:18,730

cancer.org a you back to black selves

176

00:08:24,660 --> 00:08:22,040

self or internet diagnosis and the use

177

00:08:27,670 --> 00:08:24,670

of black selves don't allow for accuracy

178

00:08:30,000 --> 00:08:27,680

some lesions and skin spots are banana

179

00:08:32,650 --> 00:08:30,010

and don't require any treatment at all

180

00:08:35,320 --> 00:08:32,660

conversely those that do need their

181

00:08:38,050 --> 00:08:35,330

progression assess black selves can

182

00:08:39,760 --> 00:08:38,060

leave behind cancerous cells the use of

183

00:08:42,219 --> 00:08:39,770

black selves can lead to pointless

184

00:08:45,880 --> 00:08:42,229

injury and a false sense of having

185

00:08:48,910 --> 00:08:45,890

cancer treated why do people choose to

186

00:08:50,770 --> 00:08:48,920

use black selves well mistrust of

187

00:08:53,260 --> 00:08:50,780

evidence-based medicine is a factor

188

00:08:53,730 --> 00:08:53,270

alongside the belief that black self is

189

00:08:57,600 --> 00:08:53,740

some

190

00:08:59,910 --> 00:08:57,610

safer because it is natural as with many

191

00:09:01,620 --> 00:08:59,920

other dangerous beliefs getting accurate

192

00:09:04,139 --> 00:09:01,630

information out into the public sphere

193

00:09:06,120 --> 00:09:04,149

can help but it can also further

194

00:09:07,949 --> 00:09:06,130

polarize those who are heavily invested

195

00:09:10,440 --> 00:09:07,959

in the belief there's a substantial

196

00:09:12,420 --> 00:09:10,450

number of blacks Alvord hiron who

197

00:09:14,850 --> 00:09:12,430

believe that black soul is a cure for

198

00:09:16,889 --> 00:09:14,860

cancer being suppressed by big farmer

199

00:09:19,680 --> 00:09:16,899

the government lizard people and what

200

00:09:21,630 --> 00:09:19,690

have you publicizing the dangers of

201  
00:09:25,410 --> 00:09:21,640  
black selves is one way to reduce its

202  
00:09:28,079 --> 00:09:25,420  
use another is via regulation this is a

203  
00:09:29,880 --> 00:09:28,089  
difficult one as while the TGA have

204  
00:09:32,310 --> 00:09:29,890  
deemed it unlisted on the Australian

205  
00:09:34,889 --> 00:09:32,320  
register of therapeutic goods there is

206  
00:09:38,220 --> 00:09:34,899  
no effective ban on black self products

207  
00:09:40,199 --> 00:09:38,230  
the TGA has however issued an alert

208  
00:09:43,019 --> 00:09:40,209  
recommending people do not use black

209  
00:09:45,690 --> 00:09:43,029  
selves and associated ineffective cancer

210  
00:09:47,639 --> 00:09:45,700  
cures which is useful as we can then

211  
00:09:50,190 --> 00:09:47,649  
report those selling black cells or

212  
00:09:52,710 --> 00:09:50,200  
products recommending their use such as

213  
00:09:58,440 --> 00:09:52,720

the notorious DVD one answer to cancer

214

00:09:59,940 --> 00:09:58,450

to the TGA in 2013 the TGA responded to

215

00:10:01,740 --> 00:09:59,950

a complaint made regarding the

216

00:10:03,990 --> 00:10:01,750

Australian vaccination networks

217

00:10:06,870 --> 00:10:04,000

promotion of black self and the sale of

218

00:10:08,699 --> 00:10:06,880

the one answer to cancer DVD citing

219

00:10:12,569 --> 00:10:08,709

several breaches of the therapeutic

220

00:10:14,610 --> 00:10:12,579

goods act 1989 the TGA ordered the

221

00:10:16,860 --> 00:10:14,620

removal of any promotion of black cell

222

00:10:19,620 --> 00:10:16,870

from the avians website and that a

223

00:10:22,790 --> 00:10:19,630

retraction be posted including a link to

224

00:10:25,470 --> 00:10:22,800

the tj's consumer alert on its use

225

00:10:27,840 --> 00:10:25,480

personally i'd like to see regulatory

226

00:10:29,940 --> 00:10:27,850

agencies come down harder on dangerous

227

00:10:31,889 --> 00:10:29,950

products such as black selves but their

228

00:10:34,949 --> 00:10:31,899

consumer alert can be useful when

229

00:10:36,960 --> 00:10:34,959

approaching third parties the night

230

00:10:38,699 --> 00:10:36,970

before my minor procedure I decided to

231

00:10:40,500 --> 00:10:38,709

have a quick look online to see whether

232

00:10:43,079 --> 00:10:40,510

i could find anybody selling black

233

00:10:45,240 --> 00:10:43,089

selves in australia unfortunately i

234

00:10:47,040 --> 00:10:45,250

didn't have to look too hard there were

235

00:10:49,380 --> 00:10:47,050

several listings on ebay for black

236

00:10:51,930 --> 00:10:49,390

selves posted by sellers based in

237

00:10:54,210 --> 00:10:51,940

australia i filled out reports for each

238

00:10:56,639 --> 00:10:54,220

one on their item pages and then decided

239

00:11:00,660 --> 00:10:56,649

to have a go at contacting ebay publicly

240

00:11:03,870 --> 00:11:00,670

via twitter with a polite tweet quote hi

241

00:11:06,530 --> 00:11:03,880

ebay you several au listings for black

242

00:11:09,380 --> 00:11:06,540

selves / bloodroot selves on

243

00:11:11,810 --> 00:11:09,390

safe and not on TGA register can you

244

00:11:15,050 --> 00:11:11,820

remove with a link to the tj's warning

245

00:11:16,310 --> 00:11:15,060

end quote I didn't have a great amount

246

00:11:18,230 --> 00:11:16,320

of confidence that anything would come

247

00:11:20,960 --> 00:11:18,240

of it but thought it worth a try

248

00:11:23,230 --> 00:11:20,970

nonetheless the next morning I work to a

249

00:11:27,380 --> 00:11:23,240

reply from ebays Australian account

250

00:11:29,120 --> 00:11:27,390

which Joe alabaster pager thanks so much

251  
00:11:31,340 --> 00:11:29,130  
for bringing this to our attention we're

252  
00:11:34,840 --> 00:11:31,350  
removing all this things now shut if

253  
00:11:37,670 --> 00:11:34,850  
there's anything else end quote wow and

254  
00:11:39,920 --> 00:11:37,680  
a few more listings did appear from the

255  
00:11:42,080 --> 00:11:39,930  
same sellers with words slightly changed

256  
00:11:44,480 --> 00:11:42,090  
in order to try and evade detection and

257  
00:11:46,340 --> 00:11:44,490  
deletion ascent links to them back to

258  
00:11:49,280 --> 00:11:46,350  
ebay via Twitter and they promptly

259  
00:11:51,440 --> 00:11:49,290  
deleted these also when I let ebay know

260  
00:11:53,150 --> 00:11:51,450  
how much I appreciated their help the

261  
00:11:56,210 --> 00:11:53,160  
person handling their Twitter account

262  
00:11:58,220 --> 00:11:56,220  
replied quote no worries at all I made

263  
00:12:02,450 --> 00:11:58,230

the mistake of googling that stuff end

264

00:12:04,610 --> 00:12:02,460

quote I suppose for most people the

265

00:12:06,200 --> 00:12:04,620

images of black sell views speak for

266

00:12:08,030 --> 00:12:06,210

themselves and I feel very fortunate

267

00:12:10,280 --> 00:12:08,040

that I happened to come across somebody

268

00:12:12,080 --> 00:12:10,290

in a position of power to virtually get

269

00:12:14,810 --> 00:12:12,090

it off the shelves who is eager to

270

00:12:17,120 --> 00:12:14,820

assist when making a complaint such

271

00:12:19,790 --> 00:12:17,130

people are out there we don't always

272

00:12:21,340 --> 00:12:19,800

find them or they can't always act when

273

00:12:24,440 --> 00:12:21,350

trying to alert businesses organizations

274

00:12:27,140 --> 00:12:24,450

or dare I say government-run health

275

00:12:28,400 --> 00:12:27,150

websites too dangerous misinformation or

276

00:12:30,980 --> 00:12:28,410

products they're involved in the

277

00:12:33,260 --> 00:12:30,990

promotion of lobbying against quackery

278

00:12:35,390 --> 00:12:33,270

is often a more time-consuming and

279

00:12:38,300 --> 00:12:35,400

complicated process than a couple of

280

00:12:40,190 --> 00:12:38,310

ebay forms and some tweets it really is

281

00:12:42,440 --> 00:12:40,200

worth taking that first step though

282

00:12:44,930 --> 00:12:42,450

whether it results in a small and

283

00:12:47,360 --> 00:12:44,940

immediate success or is the beginning of

284

00:12:49,370 --> 00:12:47,370

a greater campaign and if you don't feel

285

00:12:51,320 --> 00:12:49,380

that larger scale complaints lobbying

286

00:12:53,570 --> 00:12:51,330

and publicizing are your thing get in

287

00:12:55,400 --> 00:12:53,580

touch with other skeptics let them know

288

00:12:58,190 --> 00:12:55,410

what's going on and see whether they're

289

00:12:59,960 --> 00:12:58,200

inspired to take action there are days

290

00:13:01,820 --> 00:12:59,970

when I feel rather overwhelmed by the

291

00:13:03,770 --> 00:13:01,830

amount of dangerous quackery out there

292

00:13:05,330 --> 00:13:03,780

and helpless to do much about it I'm

293

00:13:07,790 --> 00:13:05,340

acquainted with some people who

294

00:13:09,380 --> 00:13:07,800

accomplish amazing things medical

295

00:13:11,990 --> 00:13:09,390

researchers doctors and nurses

296

00:13:14,420 --> 00:13:12,000

journalists stop the avian and the good

297

00:13:16,400 --> 00:13:14,430

thinking society and individuals who

298

00:13:18,410 --> 00:13:16,410

utilize their expertise and passion to

299

00:13:19,860 --> 00:13:18,420

expose and formally complain about

300

00:13:22,019 --> 00:13:19,870

charlatans quacks

301  
00:13:24,269 --> 00:13:22,029  
and dangerously mislead proponents of

302  
00:13:27,060 --> 00:13:24,279  
whoa I've had the privilege of meeting

303  
00:13:29,310 --> 00:13:27,070  
great activists and educators dedicated

304  
00:13:31,170 --> 00:13:29,320  
communicators those who engage with the

305  
00:13:33,570 --> 00:13:31,180  
media the public and with bodies

306  
00:13:36,540 --> 00:13:33,580  
creating policy and their efforts

307  
00:13:38,220 --> 00:13:36,550  
completely blow me away over the past

308  
00:13:40,680 --> 00:13:38,230  
few years that I've been involved with

309  
00:13:42,440 --> 00:13:40,690  
skepticism I've become convinced that we

310  
00:13:44,970 --> 00:13:42,450  
can all be doing something useful

311  
00:13:46,820 --> 00:13:44,980  
whether it's a simple ascending a

312  
00:13:49,590 --> 00:13:46,830  
complaint to an e-commerce website

313  
00:13:51,120 --> 00:13:49,600

engaging politely on social media with

314

00:13:53,430 --> 00:13:51,130

those in a position to help stop

315

00:13:55,410 --> 00:13:53,440

quackery being spread sharing

316

00:13:58,079 --> 00:13:55,420

evidence-based information when somebody

317

00:14:00,780 --> 00:13:58,089

makes an inaccurate claim letting people

318

00:14:02,730 --> 00:14:00,790

know that David avocado Wolfe makes some

319

00:14:04,980 --> 00:14:02,740

very dangerous claims of our medicine

320

00:14:07,590 --> 00:14:04,990

and suggesting they stop sharing his

321

00:14:09,510 --> 00:14:07,600

memes on Facebook or publicly or

322

00:14:12,720 --> 00:14:09,520

financially supporting campaigns run by

323

00:14:14,760 --> 00:14:12,730

other skeptics many great skeptical

324

00:14:17,160 --> 00:14:14,770

triumphs which have helped diminish the

325

00:14:19,079 --> 00:14:17,170

proliferation of woo began with a single

326

00:14:20,850 --> 00:14:19,089

person noticing something was wrong

327

00:14:24,120 --> 00:14:20,860

perhaps discussing it with other

328

00:14:26,490 --> 00:14:24,130

skeptics and acting upon it that said

329

00:14:29,610 --> 00:14:26,500

don't discount the tiny triumphs they

330

00:14:32,340 --> 00:14:29,620

definitely add up if there's a chance

331

00:14:34,620 --> 00:14:32,350

that an action you could take may bring

332

00:14:36,480 --> 00:14:34,630

about any measure of good please

333

00:14:38,280 --> 00:14:36,490

consider going ahead with making that

334

00:14:43,769 --> 00:14:38,290

complain or politely engaging with

335

00:14:45,990 --> 00:14:43,779

somebody it may well be worth it you can

336

00:14:50,160 --> 00:14:46,000

find evidence place at evidence please

337

00:15:02,680 --> 00:14:50,170

net or on facebook and i'm joe alabaster

338

00:15:08,030 --> 00:15:05,330

now on Belfast FM we turn to the person

339

00:15:10,130 --> 00:15:08,040

lads easing going and confident skeptic

340

00:15:12,440 --> 00:15:10,140

seeks other critical thinkers for fun

341

00:15:14,570 --> 00:15:12,450

laughter and good times must be willing

342

00:15:16,460 --> 00:15:14,580

to apply logic liberally and a good

343

00:15:18,530 --> 00:15:16,470

listener expect something new and

344

00:15:20,510 --> 00:15:18,540

interesting every month come and meet me

345

00:15:22,400 --> 00:15:20,520

in Belfast in Northern Ireland if this

346

00:15:25,970 --> 00:15:22,410

sounds like you check out my profile on

347

00:15:39,260 --> 00:15:25,980

bail for skeptics calm music by Kevin

348

00:15:41,510 --> 00:15:39,270

MacLeod well I'm here again at Kelly's

349

00:15:44,060 --> 00:15:41,520

Irish pub where we have just been traded

350

00:15:46,430 --> 00:15:44,070

to another wonderful science in the pub

351

00:15:47,780 --> 00:15:46,440

my name is dr. Rochelle Duvall and I'm

352

00:15:50,240 --> 00:15:47,790

with the US Environmental Protection

353

00:15:52,850 --> 00:15:50,250

Agency and how long have you been with

354

00:15:55,760 --> 00:15:52,860

the EPA I have been with the EPA for ten

355

00:16:00,230 --> 00:15:55,770

years and could you describe a bit of

356

00:16:02,240 --> 00:16:00,240

the functions of the APA sure so the EPA

357

00:16:04,370 --> 00:16:02,250

is a federal government agency in the US

358

00:16:06,380 --> 00:16:04,380

and our mission is to protect human

359

00:16:09,380 --> 00:16:06,390

health in the environment so we actually

360

00:16:10,910 --> 00:16:09,390

do a number of different functions a lot

361

00:16:13,250 --> 00:16:10,920

of people know us for putting out

362

00:16:16,190 --> 00:16:13,260

regulations and forcing and developing

363

00:16:18,500 --> 00:16:16,200

regulations and also research is a big

364

00:16:20,510 --> 00:16:18,510

area we've actually fund a lot of state

365

00:16:24,320 --> 00:16:20,520

and local organizations as well we do a

366

00:16:27,020 --> 00:16:24,330

lot of a lot of things and what do you

367

00:16:28,730 --> 00:16:27,030

do in the APA I'm with the EPA's office

368

00:16:31,040 --> 00:16:28,740

of research and development and I am a

369

00:16:33,200 --> 00:16:31,050

scientist there and right now I work on

370

00:16:35,090 --> 00:16:33,210

air pollution measurement methods and

371

00:16:36,890 --> 00:16:35,100

these are used in air quality monitoring

372

00:16:39,590 --> 00:16:36,900

networks to make sure that the air is

373

00:16:43,670 --> 00:16:39,600

healthy for us to breathe and just

374

00:16:46,250 --> 00:16:43,680

protecting the environment and what

375

00:16:48,290 --> 00:16:46,260

would you say the state of air quality

376

00:16:50,690 --> 00:16:48,300

in the United States has been since you

377

00:16:51,950 --> 00:16:50,700

started with the APA their quality in

378

00:16:54,410 --> 00:16:51,960

the United States has always been very

379

00:16:56,630 --> 00:16:54,420

good since the Clean Air Act has been

380

00:17:00,080 --> 00:16:56,640

put in place which is our act that is

381

00:17:01,520 --> 00:17:00,090

used to regulate air quality so a lot of

382

00:17:03,560 --> 00:17:01,530

the states have been doing very well

383

00:17:05,370 --> 00:17:03,570

across the u.s. some some places have

384

00:17:08,069 --> 00:17:05,380

problems because of their geography

385

00:17:10,140 --> 00:17:08,079

size of the amount of pollution but for

386

00:17:13,860 --> 00:17:10,150

the most part we have really good air

387

00:17:16,680 --> 00:17:13,870

quality in the United States and what

388

00:17:18,809 --> 00:17:16,690

sort of research do you do so I look at

389

00:17:20,430 --> 00:17:18,819

measurement methods on the equipment

390

00:17:23,400 --> 00:17:20,440

that's actually used to measure air

391

00:17:25,829 --> 00:17:23,410

pollutants so I evaluate these I test

392

00:17:27,300 --> 00:17:25,839

them I analyze them and make sure that

393

00:17:29,490 --> 00:17:27,310

we have the state of the science

394

00:17:32,270 --> 00:17:29,500

instruments available to measure

395

00:17:34,470 --> 00:17:32,280

pollutants he had some of the

396

00:17:36,480 --> 00:17:34,480

instruments today that was really

397

00:17:38,520 --> 00:17:36,490

impressive just how our smaller scholar

398

00:17:40,530 --> 00:17:38,530

so air pollution has been changing

399

00:17:43,380 --> 00:17:40,540

especially monitoring the equipment that

400

00:17:46,320 --> 00:17:43,390

we use and there have been these smaller

401  
00:17:48,420 --> 00:17:46,330  
low-cost air pollution sensors that

402  
00:17:50,370 --> 00:17:48,430  
measure a lot of different pollutants

403  
00:17:52,410 --> 00:17:50,380  
like particulate matter gaseous

404  
00:17:54,510 --> 00:17:52,420  
pollutants so these are really becoming

405  
00:17:56,940 --> 00:17:54,520  
very popular because they're cheap you

406  
00:17:59,400 --> 00:17:56,950  
can carry them around they're very easy

407  
00:18:01,200 --> 00:17:59,410  
to operate and a lot of communities are

408  
00:18:04,070 --> 00:18:01,210  
very interested in learning about their

409  
00:18:06,120 --> 00:18:04,080  
quality you're talking a bit about

410  
00:18:07,770 --> 00:18:06,130  
citizen science projects would you care

411  
00:18:09,720 --> 00:18:07,780  
to talk about those further because it

412  
00:18:11,250 --> 00:18:09,730  
sounded really interesting so I've been

413  
00:18:13,410 --> 00:18:11,260

doing a lot of work with citizen and

414

00:18:15,420 --> 00:18:13,420

community groups so what we have

415

00:18:17,970 --> 00:18:15,430

citizens just common people who are not

416

00:18:19,890 --> 00:18:17,980

scientist they actually run equipment

417

00:18:22,650 --> 00:18:19,900

for us and there are these air pollution

418

00:18:24,450 --> 00:18:22,660

sensors that I showed earlier and they

419

00:18:27,930 --> 00:18:24,460

collect data for us and they help us to

420

00:18:30,690 --> 00:18:27,940

build our research and make it better so

421

00:18:32,610 --> 00:18:30,700

what are the big challenges facing air

422

00:18:35,490 --> 00:18:32,620

quality and dealing with air pollution

423

00:18:37,080 --> 00:18:35,500

for the future I think I'm just getting

424

00:18:39,630 --> 00:18:37,090

people to understand that they can take

425

00:18:42,360 --> 00:18:39,640

apart and helping to reduce air quality

426

00:18:44,610 --> 00:18:42,370

and different actions people can take

427

00:18:46,800 --> 00:18:44,620

whether it's you know maybe you know

428

00:18:50,700 --> 00:18:46,810

just walking to work or walking in

429

00:18:53,160 --> 00:18:50,710

general and stop using cars and

430

00:18:55,230 --> 00:18:53,170

different types of transportation that

431

00:18:57,600 --> 00:18:55,240

creates pollution I'm just changing

432

00:18:59,430 --> 00:18:57,610

their behaviors and attitudes about

433

00:19:01,440 --> 00:18:59,440

pollution just so that they become more

434

00:19:04,020 --> 00:19:01,450

aware the final question what is it

435

00:19:05,430 --> 00:19:04,030

about science that appeals to you so

436

00:19:08,550 --> 00:19:05,440

much what made you want to become a

437

00:19:11,240 --> 00:19:08,560

scientist I always loved math and

438

00:19:13,980 --> 00:19:11,250

chemistry and I like the fact that I can

439

00:19:15,310 --> 00:19:13,990

really test out new things and I can be

440

00:19:17,320 --> 00:19:15,320

part of

441

00:19:18,910 --> 00:19:17,330

and technology and really make a

442

00:19:22,300 --> 00:19:18,920

difference that's one thing that that's

443

00:19:24,010 --> 00:19:22,310

really important to me okay well thank

444

00:19:37,120 --> 00:19:24,020

you very much that was wonderful to talk

445

00:19:39,280 --> 00:19:37,130

to you thank you did you see that UFO

446

00:19:40,810 --> 00:19:39,290

sighting that made the news what did

447

00:19:43,000 --> 00:19:40,820

that latest study about alternative

448

00:19:45,910 --> 00:19:43,010

treatments really say is this photo

449

00:19:47,800 --> 00:19:45,920

making the rounds real or hoax duffle

450

00:19:49,540 --> 00:19:47,810

news is a unique website featuring news

451  
00:19:51,970 --> 00:19:49,550  
about pseudoscience the paranormal

452  
00:19:53,980 --> 00:19:51,980  
anomalies and questionable claims framed

453  
00:19:56,290 --> 00:19:53,990  
with the skeptical view come visit

454  
00:19:59,260 --> 00:19:56,300  
doubtful newscom every day for news

455  
00:20:02,230 --> 00:19:59,270  
about cryptozoology conspiracies shams

456  
00:20:04,630 --> 00:20:02,240  
scams and more follow us on twitter at

457  
00:20:06,450 --> 00:20:04,640  
doubtful news critical thinking is

458  
00:20:09,100 --> 00:20:06,460  
essential in assessing today's news

459  
00:20:17,020 --> 00:20:09,110  
doubtful news helps you decide can you

460  
00:20:19,870 --> 00:20:17,030  
really believe this stuff have you ever

461  
00:20:21,340 --> 00:20:19,880  
wondered if there's life out there well

462  
00:20:23,730 --> 00:20:21,350  
believe it or not there's actually an

463  
00:20:26,020 --> 00:20:23,740

equation to work out the probability of

464

00:20:34,890 --> 00:20:26,030

extraterrestrial life and it's called

465

00:20:40,450 --> 00:20:37,360

so there's this astronomer named Frank

466

00:20:42,580 --> 00:20:40,460

Drake due back in 1959 started searching

467

00:20:44,620 --> 00:20:42,590

the universe for signals which may

468

00:20:47,230 --> 00:20:44,630

indicate the presence of intelligent

469

00:20:48,940 --> 00:20:47,240

life then in nineteen sixty one who was

470

00:20:51,340 --> 00:20:48,950

helping organize a conference and

471

00:20:52,990 --> 00:20:51,350

started thinking about all the factors

472

00:20:55,090 --> 00:20:53,000

which would need to be considered when

473

00:20:57,730 --> 00:20:55,100

trying to predict whether intelligent

474

00:21:00,220 --> 00:20:57,740

life was out there what he came up with

475

00:21:03,040 --> 00:21:00,230

is this equation which multiplies

476  
00:21:04,600 --> 00:21:03,050  
together the race of star formation the

477  
00:21:07,030 --> 00:21:04,610  
fraction of those stars which have

478  
00:21:09,490 --> 00:21:07,040  
planets how many of those planets that

479  
00:21:11,260 --> 00:21:09,500  
could support life the fraction of

480  
00:21:13,450 --> 00:21:11,270  
planets which could support life that

481  
00:21:15,370 --> 00:21:13,460  
actually develop life at some point the

482  
00:21:17,320 --> 00:21:15,380  
fraction of civilizations that develop a

483  
00:21:19,300 --> 00:21:17,330  
technology that releases detectable

484  
00:21:21,240 --> 00:21:19,310  
signs of their existence into space and

485  
00:21:23,830 --> 00:21:21,250  
the length of time for which such

486  
00:21:28,270 --> 00:21:23,840  
civilizations release detectable signals

487  
00:21:30,370 --> 00:21:28,280  
into space now obviously some of those

488  
00:21:33,520 --> 00:21:30,380

factors are measurable or can be

489

00:21:36,160 --> 00:21:33,530

calculated but some we just don't know I

490

00:21:37,810 --> 00:21:36,170

mean how do you know how many planets

491

00:21:40,000 --> 00:21:37,820

with life go on to develop a

492

00:21:42,010 --> 00:21:40,010

civilization or how many of those

493

00:21:44,200 --> 00:21:42,020

develop technology which releases

494

00:21:46,330 --> 00:21:44,210

detectable signals because of these

495

00:21:48,460 --> 00:21:46,340

limitations the Drake Equation isn't

496

00:21:50,590 --> 00:21:48,470

really used to predict the abundance of

497

00:21:52,720 --> 00:21:50,600

life out there but it is an interesting

498

00:21:54,460 --> 00:21:52,730

equation to just contemplate when

499

00:21:56,650 --> 00:21:54,470

thinking about life in the universe and

500

00:21:59,620 --> 00:21:56,660

what is required for us to find it and

501  
00:22:04,060 --> 00:21:59,630  
now for fast facts about the search for

502  
00:22:06,070 --> 00:22:04,070  
life on other planets the Voyager space

503  
00:22:08,230 --> 00:22:06,080  
probes carry records which contain

504  
00:22:10,990 --> 00:22:08,240  
information about Earth and humans in

505  
00:22:12,970 --> 00:22:11,000  
case it meets other life forms part of

506  
00:22:15,010 --> 00:22:12,980  
the Curiosity rover mission is to search

507  
00:22:16,960 --> 00:22:15,020  
for water on Mars which could support

508  
00:22:18,910 --> 00:22:16,970  
the presence of life the zone

509  
00:22:20,950 --> 00:22:18,920  
surrounding a star which gives planetary

510  
00:22:23,710 --> 00:22:20,960  
conditions which are just right for life

511  
00:22:25,240 --> 00:22:23,720  
is called the Goldilocks zone and one

512  
00:22:27,400 --> 00:22:25,250  
problem of searching for life in the

513  
00:22:29,470 --> 00:22:27,410

universe is that life may exist in the

514

00:22:31,960 --> 00:22:29,480

form we don't recognize as being alive

515

00:22:34,120 --> 00:22:31,970

or in places we don't realize can even

516

00:22:35,410 --> 00:22:34,130

support life want to find out more about

517

00:22:37,690 --> 00:22:35,420

the search for life on other planets

518

00:22:39,550 --> 00:22:37,700

check out our website where we have some

519

00:22:51,960 --> 00:22:39,560

links and we'll catch you right back

520

00:22:56,049 --> 00:22:54,249

are you enjoying the skeptic zone

521

00:22:58,629 --> 00:22:56,059

podcast and wondering where you can find

522

00:23:00,460 --> 00:22:58,639

more skeptical information skeptics on

523

00:23:02,379 --> 00:23:00,470

the net is an online directory for

524

00:23:04,450 --> 00:23:02,389

everything skeptical it features

525

00:23:07,419 --> 00:23:04,460

listings for skeptical podcasts blogs

526

00:23:09,669 --> 00:23:07,429

people local groups and more it also

527

00:23:11,229 --> 00:23:09,679

includes the sotn blog where people in

528

00:23:12,969 --> 00:23:11,239

the know right introductions to their

529

00:23:21,359 --> 00:23:12,979

favorite skeptical and pseudo scientific

530

00:23:29,139 --> 00:23:26,019

here's my not spooky action at a

531

00:23:33,849 --> 00:23:30,940

well we here at skeptics in the pub in

532

00:23:35,859 --> 00:23:33,859

January where it's all sort of quiet a

533

00:23:37,299 --> 00:23:35,869

bit subtle and runs we push all into the

534

00:23:38,919 --> 00:23:37,309

corner here because tonight it will be

535

00:23:40,629 --> 00:23:38,929

happening and it will be revealed as I

536

00:23:44,259 --> 00:23:40,639

asked the two big questions of it but I

537

00:23:46,180 --> 00:23:44,269

asked new year's resolutions a lot of

538

00:23:48,609 --> 00:23:46,190

rubbish and what are your predictions

539

00:23:51,279 --> 00:23:48,619

for 2016 now I've got a man here what's

540

00:23:52,899 --> 00:23:51,289

your name sir drew and what brought you

541

00:23:54,159 --> 00:23:52,909

here drew how'd you find the place how

542

00:23:56,289 --> 00:23:54,169

do you want to go okay I want to hang

543

00:23:59,680 --> 00:23:56,299

out with the skeptics vision from God

544

00:24:02,739 --> 00:23:59,690

actually wow that's a new one that is a

545

00:24:05,379 --> 00:24:02,749

new one and had the division of PDF it

546

00:24:07,599 --> 00:24:05,389

just can't be behind my eyes you know in

547

00:24:09,579 --> 00:24:07,609

my heart my hair was just everywhere all

548

00:24:11,079 --> 00:24:09,589

at once which immediately deeply ironic

549

00:24:14,409 --> 00:24:11,089

i'm the first I'm the first to say that

550

00:24:16,320 --> 00:24:14,419

okay and what do you want expect out of

551  
00:24:19,599 --> 00:24:16,330  
being hanging with the skeptics tonight

552  
00:24:21,430 --> 00:24:19,609  
skepticism okay okay well there might be

553  
00:24:23,139 --> 00:24:21,440  
a little that going on I'm skeptic of

554  
00:24:24,729 --> 00:24:23,149  
your vision for a start but that's just

555  
00:24:26,799 --> 00:24:24,739  
a fair enough then now what do you

556  
00:24:28,239 --> 00:24:26,809  
reckon about new years resolutions lot

557  
00:24:30,879 --> 00:24:28,249  
of rubbish did you make any have you

558  
00:24:33,039 --> 00:24:30,889  
broken that already I made a news

559  
00:24:35,589 --> 00:24:33,049  
resolution back in twenty twelve not to

560  
00:24:37,180 --> 00:24:35,599  
make year's resolution so I'm read into

561  
00:24:38,649 --> 00:24:37,190  
that what you will no I think that's a

562  
00:24:39,940 --> 00:24:38,659  
fairly skeptical approach and what about

563  
00:24:43,060 --> 00:24:39,950

any predictions for the year what are

564

00:24:44,680 --> 00:24:43,070

you reckon eleven and a half months from

565

00:24:46,209 --> 00:24:44,690

now people gonna come up to me and come

566

00:24:48,369 --> 00:24:46,219

up to you and come up to George over

567

00:24:53,589 --> 00:24:48,379

there and say oh my god can you believe

568

00:24:56,019 --> 00:24:53,599

it's almost 2017 that's cool and people

569

00:24:59,019 --> 00:24:56,029

will still want to have heard on New

570

00:25:01,060 --> 00:24:59,029

Year's Eve party like it's 1999 God yeah

571

00:25:02,469 --> 00:25:01,070

it's the best song yeah of course at

572

00:25:04,149 --> 00:25:02,479

that as well and of course outlook my

573

00:25:08,529 --> 00:25:04,159

prediction for this year's it this year

574

00:25:10,930 --> 00:25:08,539

is to give up last year last year it was

575

00:25:13,719 --> 00:25:10,940

to get a job the year before that was to

576

00:25:15,579 --> 00:25:13,729

get a better job now I just given up I

577

00:25:18,039 --> 00:25:15,589

just give up completely and it's pretty

578

00:25:20,200 --> 00:25:18,049

easy I think I can keep that one now

579

00:25:22,980 --> 00:25:20,210

Richard also if you had any predictions

580

00:25:25,530 --> 00:25:22,990

for the year I predict that

581

00:25:27,480 --> 00:25:25,540

it's incapable prediction he's a good

582

00:25:29,010 --> 00:25:27,490

man he's pretty mouthy for guys along

583

00:25:30,900 --> 00:25:29,020

here for the first time and I guess my

584

00:25:33,299 --> 00:25:30,910

first prediction is I'll be interrupted

585

00:25:36,060 --> 00:25:33,309

doing an interview oh it worked my

586

00:25:40,080 --> 00:25:36,070

second prediction is that come november

587

00:25:41,820 --> 00:25:40,090

december this year TV shows and

588

00:25:45,450 --> 00:25:41,830

newspapers will have predictions for

589

00:25:47,430 --> 00:25:45,460

2017 from psychics and breaking news

590

00:25:49,320 --> 00:25:47,440

here apparently something I've known

591

00:25:52,440 --> 00:25:49,330

from North Korea has announced that

592

00:25:55,230 --> 00:25:52,450

they've got a and hydrogen bomb I'm

593

00:25:56,970 --> 00:25:55,240

sorry that that's a typo up the hydrogen

594

00:25:59,030 --> 00:25:56,980

bond is at my place it's something

595

00:26:01,560 --> 00:25:59,040

completely different but back to Richard

596

00:26:04,410 --> 00:26:01,570

you know i think the word skeptical was

597

00:26:06,810 --> 00:26:04,420

invented for North Korea they they claim

598

00:26:08,610 --> 00:26:06,820

no end of amazing things I think they're

599

00:26:11,310 --> 00:26:08,620

going to claim that they've gone to Mars

600

00:26:13,049 --> 00:26:11,320

next for those thing on the channel 10

601  
00:26:14,900 --> 00:26:13,059  
site that they've been a typo they

602  
00:26:18,120 --> 00:26:14,910  
described it as the North Korean

603  
00:26:20,370 --> 00:26:18,130  
hydroponic bomb thank you to dr. ray

604  
00:26:22,440 --> 00:26:20,380  
chief or catching no one yes okay Big O

605  
00:26:25,970 --> 00:26:22,450  
predictions for the year my predictions

606  
00:26:30,240 --> 00:26:25,980  
for 2016 I think they're

607  
00:26:34,440 --> 00:26:30,250  
so I think the Donald Trump will drop

608  
00:26:36,600 --> 00:26:34,450  
out of the presidential race I think

609  
00:26:40,620 --> 00:26:36,610  
that Jeb Bush would drop out of the

610  
00:26:44,870 --> 00:26:40,630  
presidential race and I think the next

611  
00:26:51,660 --> 00:26:49,130  
probably Hillary maybe Bernie who knows

612  
00:26:53,820 --> 00:26:51,670  
okay well that's a wonderfully they give

613  
00:26:55,530 --> 00:26:53,830

me their Richard now of course any new

614

00:26:58,230 --> 00:26:55,540

year's resolutions are they actually any

615

00:26:59,910 --> 00:26:58,240

use at all like are you being a poo poo

616

00:27:01,020 --> 00:26:59,920

a cynical skeptic from way back wouldn't

617

00:27:02,790 --> 00:27:01,030

have much to say about any of them would

618

00:27:04,350 --> 00:27:02,800

you I've made many new year's

619

00:27:07,620 --> 00:27:04,360

resolutions over the years and I

620

00:27:09,900 --> 00:27:07,630

forgotten each of them I think my new

621

00:27:12,140 --> 00:27:09,910

year's resolution this year is not to

622

00:27:14,940 --> 00:27:12,150

make any but that everybody says that

623

00:27:17,340 --> 00:27:14,950

monocles a very big historical event has

624

00:27:19,290 --> 00:27:17,350

occurred this week Richard Saunders it

625

00:27:22,470 --> 00:27:19,300

has indeed we must say congratulations

626  
00:27:24,180 --> 00:27:22,480  
to skip tied for 500 episodes now the

627  
00:27:25,800 --> 00:27:24,190  
skeptical zone is still in three hundreds

628  
00:27:27,540 --> 00:27:25,810  
of defeat it's quite an effort to get

629  
00:27:30,930 --> 00:27:27,550  
one out every week so to get one out

630  
00:27:33,210 --> 00:27:30,940  
every week for how many years it is 500

631  
00:27:36,780 --> 00:27:33,220  
what an effort congratulations kept I

632  
00:27:38,430 --> 00:27:36,790  
have a congratulations Bryan on on 487

633  
00:27:41,340 --> 00:27:38,440  
episodes they were really good the other

634  
00:27:42,900 --> 00:27:41,350  
ones not so hot but 487 really good

635  
00:27:44,760 --> 00:27:42,910  
episodes of skipped I'd which is better

636  
00:27:46,800 --> 00:27:44,770  
than planet Maynard we've only had three

637  
00:27:48,930 --> 00:27:46,810  
adwalla ones we've done well done and

638  
00:27:51,870 --> 00:27:48,940

most of those episodes to done from the

639

00:27:55,140 --> 00:27:51,880

hot tub of truth so a lot of bubbling

640

00:27:56,610 --> 00:27:55,150

hot salty chlorinated water went into

641

00:27:58,860 --> 00:27:56,620

making those five hundred episodes of

642

00:28:00,750 --> 00:27:58,870

people and I hope you appreciate it so

643

00:28:02,580 --> 00:28:00,760

what do you think of you use resolutions

644

00:28:04,410 --> 00:28:02,590

do you make them are they achieve all is

645

00:28:07,590 --> 00:28:04,420

there any point what are we doing here I

646

00:28:09,600 --> 00:28:07,600

think they're good because it encourages

647

00:28:11,510 --> 00:28:09,610

people to think about improving

648

00:28:14,300 --> 00:28:11,520

themselves and

649

00:28:17,030 --> 00:28:14,310

and making changes and there might not

650

00:28:18,560 --> 00:28:17,040

be in a place where they're going to do

651  
00:28:20,360 --> 00:28:18,570  
that at other times the third of the

652  
00:28:22,100 --> 00:28:20,370  
year and this is an opportunity for them

653  
00:28:24,770 --> 00:28:22,110  
to think about it the problem is but

654  
00:28:28,040 --> 00:28:24,780  
they don't have perhaps the skills or

655  
00:28:30,110 --> 00:28:28,050  
the tools to follow through and maintain

656  
00:28:31,700 --> 00:28:30,120  
or sustain those changes but at least

657  
00:28:34,450 --> 00:28:31,710  
they're thinking about it and even even

658  
00:28:38,210 --> 00:28:34,460  
having an intention and thinking about

659  
00:28:39,890 --> 00:28:38,220  
doing something better or different can

660  
00:28:41,600 --> 00:28:39,900  
be enough to make significant changes so

661  
00:28:42,950 --> 00:28:41,610  
I think that I think it's good I think

662  
00:28:44,360 --> 00:28:42,960  
it's good they don't always follow

663  
00:28:46,790 --> 00:28:44,370

through that doesn't always work but

664

00:28:48,200 --> 00:28:46,800

it's just the best time of year for that

665

00:28:50,330 --> 00:28:48,210

when everyone's drinking in the middle

666

00:28:53,540 --> 00:28:50,340

of summer after eating their guts out at

667

00:28:55,550 --> 00:28:53,550

Christmas absolutely and maybe if we did

668

00:28:57,050 --> 00:28:55,560

them in June maybe juna be a good time

669

00:28:58,730 --> 00:28:57,060

in the middle of winter you go yeah I'll

670

00:29:02,390 --> 00:28:58,740

cut i'll cut back on the booze then

671

00:29:04,430 --> 00:29:02,400

maybe it's always a good time just like

672

00:29:06,230 --> 00:29:04,440

just did my mom up your temptations over

673

00:29:08,380 --> 00:29:06,240

summer I mean we've got Iran here my

674

00:29:10,250 --> 00:29:08,390

goodness me I put the glass down around

675

00:29:11,600 --> 00:29:10,260

what do you what do you think about the

676  
00:29:13,610 --> 00:29:11,610  
whole thing do you think it's just a

677  
00:29:15,080 --> 00:29:13,620  
pointless doing this now here's someone

678  
00:29:17,720 --> 00:29:15,090  
who actually had now you had a new

679  
00:29:21,280 --> 00:29:17,730  
year's resolution didn't you and a

680  
00:29:25,010 --> 00:29:21,290  
prediction of my prediction yep is that

681  
00:29:28,580 --> 00:29:25,020  
somebody will be named John today this

682  
00:29:34,810 --> 00:29:28,590  
this year when they are born and they

683  
00:29:38,330 --> 00:29:34,820  
will weigh what here 3.11 kilograms

684  
00:29:41,909 --> 00:29:38,340  
that's incredibly specific is

685  
00:29:45,389 --> 00:29:41,919  
but due to my odds I'm pretty darn sure

686  
00:29:47,490 --> 00:29:45,399  
it'll happen okay obviously a betting

687  
00:29:49,409 --> 00:29:47,500  
kind of guy these pc's on the ball rats

688  
00:29:51,240 --> 00:29:49,419

under boys good with the distance okay

689

00:29:53,070 --> 00:29:51,250

now what about with trying to do

690

00:29:54,690 --> 00:29:53,080

predictions this you got any predictions

691

00:29:56,399 --> 00:29:54,700

for this year or have you even tried to

692

00:29:59,159 --> 00:29:56,409

do a new year's resolution okay year's

693

00:30:01,350 --> 00:29:59,169

resolution yeah is the president of the

694

00:30:05,519 --> 00:30:01,360

skeptics I've gotta say you know yeah so

695

00:30:08,370 --> 00:30:05,529

new solutions I've never bothered but I

696

00:30:09,749 --> 00:30:08,380

must say I actually like the idea of a

697

00:30:11,580 --> 00:30:09,759

specific date when you're going to make

698

00:30:13,649 --> 00:30:11,590

a big change because then you can it's

699

00:30:15,149 --> 00:30:13,659

easy to say it's been three months

700

00:30:16,499 --> 00:30:15,159

already it's been four months you don't

701  
00:30:18,180 --> 00:30:16,509  
have to start calculating you know if it

702  
00:30:20,070 --> 00:30:18,190  
says so the first of first of January is

703  
00:30:22,590 --> 00:30:20,080  
not a bad day to start something I think

704  
00:30:24,149 --> 00:30:22,600  
the problem is that all the research i

705  
00:30:26,490 --> 00:30:24,159  
mean this is just an article published

706  
00:30:27,749 --> 00:30:26,500  
just a few days ago but about research

707  
00:30:29,909 --> 00:30:27,759  
that was done in the past that shows

708  
00:30:31,259 --> 00:30:29,919  
that year's resolutions by and large

709  
00:30:32,879 --> 00:30:31,269  
fail just look like all other

710  
00:30:36,779 --> 00:30:32,889  
resolutions there's no better or worse

711  
00:30:38,310 --> 00:30:36,789  
than a business so what he did yeah but

712  
00:30:39,299 --> 00:30:38,320  
it's good to have any resolution i think

713  
00:30:40,769 --> 00:30:39,309

if you're going to have if there's

714

00:30:42,600 --> 00:30:40,779

things that are important to you I'll

715

00:30:44,039 --> 00:30:42,610

tell you in what way it's good news

716

00:30:46,440 --> 00:30:44,049

resolutions don't tend to be small

717

00:30:48,509 --> 00:30:46,450

things so I think it's an opportunity

718

00:30:50,119 --> 00:30:48,519

for people to say this thing that I've

719

00:30:52,590 --> 00:30:50,129

really wanted to do for a very long time

720

00:30:54,720 --> 00:30:52,600

stopping drinking or reducing drinking

721

00:30:56,070 --> 00:30:54,730

or side here to the gym whatever it's a

722

00:30:57,659 --> 00:30:56,080

time when people make decisions and I

723

00:30:58,980 --> 00:30:57,669

think a lot of other times people say oh

724

00:31:00,180 --> 00:30:58,990

I'm in the middle of this I middle of

725

00:31:01,799 --> 00:31:00,190

that it's a time for people to make

726

00:31:03,810 --> 00:31:01,809

decisions but the reality is that they

727

00:31:06,869 --> 00:31:03,820

fail just as much as any any other

728

00:31:10,649 --> 00:31:06,879

decisions made any other time okay okay

729

00:31:12,899 --> 00:31:10,659

and any predictions about okay so okay

730

00:31:17,869 --> 00:31:12,909

so that's not with a big ones so there's

731

00:31:23,730 --> 00:31:20,279

earthquakes particularly i predict

732

00:31:25,259 --> 00:31:23,740

earthquakes let me think in japan and in

733

00:31:29,230 --> 00:31:25,269

the western United States potentially

734

00:31:39,230 --> 00:31:34,030

I i predict that there will be

735

00:31:42,470 --> 00:31:39,240

potentially trouble between the israel

736

00:31:47,090 --> 00:31:42,480

israel and palestine that's a bold move

737

00:31:49,160 --> 00:31:47,100

it's about decision see I know and and I

738

00:31:51,410 --> 00:31:49,170

think the Americans will get involved in

739

00:31:54,950 --> 00:31:51,420

in places in the world where they do not

740

00:31:57,410 --> 00:31:54,960

belong so the this I know I know I know

741

00:31:58,850 --> 00:31:57,420

I know I've east maitland I'm sorry I'm

742

00:32:02,330 --> 00:31:58,860

taking east maitland New South Wales

743

00:32:03,650 --> 00:32:02,340

there'll be so over that so yeah so I

744

00:32:06,740 --> 00:32:03,660

think I've taken enough of risk I'm not

745

00:32:08,420 --> 00:32:06,750

willing to say anything more and we've

746

00:32:09,890 --> 00:32:08,430

met one person who's along for the first

747

00:32:13,400 --> 00:32:09,900

time tonight we have a couple it along

748

00:32:16,490 --> 00:32:13,410

heat and i feel we got mafia and stan

749

00:32:21,050 --> 00:32:16,500

and are you both scientists or anything

750

00:32:23,600 --> 00:32:21,060

I have a master's in biology so sure Wow

751  
00:32:25,160 --> 00:32:23,610  
and what you do I'm an IT guy but I have

752  
00:32:27,290 --> 00:32:25,170  
a master's in computer science so I

753  
00:32:28,640 --> 00:32:27,300  
guess I'm a half of scientists oh yeah

754  
00:32:30,800 --> 00:32:28,650  
well you're both better than me i'm

755  
00:32:33,170 --> 00:32:30,810  
always guessing and stuff in that so you

756  
00:32:36,980 --> 00:32:33,180  
can plug an ethernet cord in in record

757  
00:32:39,170 --> 00:32:36,990  
time can't you i can leave now if any of

758  
00:32:40,130 --> 00:32:39,180  
you made any resolutions for the year or

759  
00:32:41,780 --> 00:32:40,140  
do you think they're just a lot of

760  
00:32:43,100 --> 00:32:41,790  
rubbish but put your skeptical eye on

761  
00:32:45,710 --> 00:32:43,110  
new year's resolutions what do you think

762  
00:32:47,420 --> 00:32:45,720  
about that I don't really care for new

763  
00:32:49,910 --> 00:32:47,430

year resolutions if you are determined

764

00:32:52,780 --> 00:32:49,920

to do something I don't think you need a

765

00:32:56,420 --> 00:32:52,790

new year resolution you can just have a

766

00:32:58,700 --> 00:32:56,430

determination to do it and and do

767

00:33:01,610 --> 00:32:58,710

something on your own but if some people

768

00:33:03,770 --> 00:33:01,620

like to have some date and fall go

769

00:33:05,840 --> 00:33:03,780

through not fine with me any predictions

770

00:33:07,340 --> 00:33:05,850

piggley in the ITA field you might be

771

00:33:09,320 --> 00:33:07,350

able to see further into the future than

772

00:33:10,550 --> 00:33:09,330

us mere mortals not in the i.t filled

773

00:33:14,090 --> 00:33:10,560

with a few Donald Trump who become

774

00:33:16,940 --> 00:33:14,100

president oh that's a bold one there now

775

00:33:19,460 --> 00:33:16,950

that I wanted some my prediction I don't

776

00:33:21,200 --> 00:33:19,470

know I think that's okay though

777

00:33:23,060 --> 00:33:21,210

Oh what kind of knot by the end of the

778

00:33:25,070 --> 00:33:23,070

year I think redic is gonna get the

779

00:33:27,230 --> 00:33:25,080

Republican nomination little commotion

780

00:33:29,919 --> 00:33:27,240

so we can at least have fun listening to

781

00:33:31,909 --> 00:33:29,929

him debate Hillary for whoever gets the

782

00:33:33,440 --> 00:33:31,919

Democratic that would be pretty

783

00:33:35,120 --> 00:33:33,450

interesting what about you and

784

00:33:38,659 --> 00:33:35,130

resolutions how do you feel about them I

785

00:33:41,240 --> 00:33:38,669

don't have near as resolutions and they

786

00:33:42,649 --> 00:33:41,250

make life work for some people but if

787

00:33:44,090 --> 00:33:42,659

they only make you feel depressed

788

00:33:46,220 --> 00:33:44,100

afterwards because he didn't follow

789

00:33:48,950 --> 00:33:46,230

throw them maybe they will just make you

790

00:33:49,850 --> 00:33:48,960

feel worse again you don't hear anyone

791

00:33:51,830 --> 00:33:49,860

talking about their new year's

792

00:33:53,390 --> 00:33:51,840

resolutions in February do that really

793

00:33:55,940 --> 00:33:53,400

it's all over by the end of January

794

00:33:57,260 --> 00:33:55,950

really yeah yeah yeah and then you

795

00:34:00,500 --> 00:33:57,270

forget about it done mentioning because

796

00:34:01,610 --> 00:34:00,510

I don't do it anymore I'm just hide well

797

00:34:03,590 --> 00:34:01,620

thank you for coming along i hope you'll

798

00:34:05,870 --> 00:34:03,600

see you here again will do thank you yes

799

00:34:08,690 --> 00:34:05,880

thank you very much guys remember those

800

00:34:10,399 --> 00:34:08,700

predictions people okay now what do you

801  
00:34:12,500 --> 00:34:10,409  
think on the issue of new year's

802  
00:34:16,730 --> 00:34:12,510  
resolutions or on the visibly

803  
00:34:18,859 --> 00:34:16,740  
predictions 2016 I'll go for both okay I

804  
00:34:22,159 --> 00:34:18,869  
think for the predictions but it's good

805  
00:34:24,139 --> 00:34:22,169  
because we reboot but the problem is it

806  
00:34:25,940 --> 00:34:24,149  
happens you have financial new year

807  
00:34:27,740 --> 00:34:25,950  
resolutions i Kenned have resolutions on

808  
00:34:30,560 --> 00:34:27,750  
the hour you need something so i thinks

809  
00:34:31,730 --> 00:34:30,570  
helps her a lot of people but gives us

810  
00:34:33,290 --> 00:34:31,740  
something i think the reason why it's

811  
00:34:34,940 --> 00:34:33,300  
good in years we're on holidays is that

812  
00:34:35,930 --> 00:34:34,950  
break he's trying to break habits and

813  
00:34:37,940 --> 00:34:35,940

all this stuff you know what's a

814

00:34:39,770 --> 00:34:37,950

resolution to have on the hour I won't

815

00:34:42,680 --> 00:34:39,780

leave work early that's nothing I know

816

00:34:45,680 --> 00:34:42,690

won't leave work early well doing exams

817

00:34:47,480 --> 00:34:45,690

or stuff like that that said I'm still

818

00:34:49,099 --> 00:34:47,490

looking at my problem was being the year

819

00:34:50,780 --> 00:34:49,109

2000 and that occurred I had my

820

00:34:52,970 --> 00:34:50,790

resolution which I still haven't done

821

00:34:54,230 --> 00:34:52,980

yet and that's getting into 16 years now

822

00:34:56,270 --> 00:34:54,240

I don't want to talk about it but I

823

00:34:59,480 --> 00:34:56,280

think that's the problem so you need to

824

00:35:02,000 --> 00:34:59,490

be far enough away from the change of

825

00:35:06,859 --> 00:35:02,010

centuries to be close enough so maybe

826

00:35:09,079 --> 00:35:06,869

the criteria be from say plus or minus

827

00:35:10,520 --> 00:35:09,089

20 years that that area around that the

828

00:35:12,410 --> 00:35:10,530

Turner century you don't make

829

00:35:13,339 --> 00:35:12,420

resolutions I don't know want to get to

830

00:35:14,510 --> 00:35:13,349

fair enough thing what about a

831

00:35:16,490 --> 00:35:14,520

prediction about you look like a guy

832

00:35:17,570 --> 00:35:16,500

who's just a touch psychic that's what

833

00:35:20,089 --> 00:35:17,580

the west of the word on the street is

834

00:35:21,589 --> 00:35:20,099

anywhere sidekick or sidekick I could

835

00:35:22,940 --> 00:35:21,599

have up mr. mixed up something like that

836

00:35:24,109 --> 00:35:22,950

that looked the people driving past in a

837

00:35:24,980 --> 00:35:24,119

car very quick I didn't hear what they

838

00:35:27,290 --> 00:35:24,990

yield thankfully

839

00:35:30,350 --> 00:35:27,300

now I think I think actually there's

840

00:35:34,160 --> 00:35:30,360

going to be a lot more issues between

841

00:35:35,510 --> 00:35:34,170

skeptics and then the the Wu merchants I

842

00:35:37,370 --> 00:35:35,520

notice on twitter at the moment there's

843

00:35:39,140 --> 00:35:37,380

a lot of people firing backwards and

844

00:35:40,730 --> 00:35:39,150

forwards shots is going on there that

845

00:35:42,290 --> 00:35:40,740

there's some naturopath who's just

846

00:35:43,910 --> 00:35:42,300

getting all steamed up and he's broccoli

847

00:35:44,960 --> 00:35:43,920

this is just the start I think that

848

00:35:47,300 --> 00:35:44,970

everyone's made their new year's

849

00:35:48,500 --> 00:35:47,310

resolutions about that so maybe I think

850

00:35:50,330 --> 00:35:48,510

this year I think people going to get

851  
00:35:53,930 --> 00:35:50,340  
aggressive is the year being aggressive

852  
00:35:55,550 --> 00:35:53,940  
where skeptics and the other crowd start

853  
00:35:57,920 --> 00:35:55,560  
coming out and we start killing each

854  
00:36:01,100 --> 00:35:57,930  
other and it's weird because it supposed

855  
00:36:02,780 --> 00:36:01,110  
to be based on an educated considered

856  
00:36:04,850 --> 00:36:02,790  
position everyone's this name calling it

857  
00:36:06,290 --> 00:36:04,860  
it's not a strangely fantastic to listen

858  
00:36:08,180 --> 00:36:06,300  
and watch too did you want to get into

859  
00:36:09,890 --> 00:36:08,190  
it with the naturopath or not or you

860  
00:36:11,420 --> 00:36:09,900  
just stay out of that kind of you enjoy

861  
00:36:13,640 --> 00:36:11,430  
good Twitter argument or you are you

862  
00:36:15,770 --> 00:36:13,650  
elsewhere when that's happening I i must

863  
00:36:17,270 --> 00:36:15,780

admit i do secretly look around on

864

00:36:20,210 --> 00:36:17,280

twitter and see these things and throw

865

00:36:21,470 --> 00:36:20,220

the occasional little comment but it's

866

00:36:23,480 --> 00:36:21,480

again you can't solve the world on

867

00:36:24,590 --> 00:36:23,490

twitter especially with 140 characters

868

00:36:26,240 --> 00:36:24,600

or less I don't know why these

869

00:36:28,250 --> 00:36:26,250

intelligent people are doing at this far

870

00:36:29,900 --> 00:36:28,260

more things to do maybe supposed to root

871

00:36:31,700 --> 00:36:29,910

photo or something just thrown off the

872

00:36:33,470 --> 00:36:31,710

track yeah that might be good maybe

873

00:36:35,390 --> 00:36:33,480

that's it well maybe we should decrease

874

00:36:37,550 --> 00:36:35,400

it to 14 characters you have the whole

875

00:36:39,920 --> 00:36:37,560

arguments based on 14 characters I think

876

00:36:41,690 --> 00:36:39,930

that will distill these difficult

877

00:36:43,640 --> 00:36:41,700

argument so you can't why I mean it's

878

00:36:45,410 --> 00:36:43,650

important hustle do 140 characters I

879

00:36:47,510 --> 00:36:45,420

think you've predicted very busy you

880

00:37:04,980 --> 00:36:47,520

ahead on Twitter sir yeah I think that's

881

00:37:09,160 --> 00:37:07,570

today this is dr. Karl Karl Christmas he

882

00:37:11,440 --> 00:37:09,170

proud to be skeptic and you can find out

883

00:37:30,710 --> 00:37:11,450

more about me at dr. Karl calm and get

884

00:37:34,770 --> 00:37:33,240

thank you for listening to the skeptic

885

00:37:37,470 --> 00:37:34,780

zone you know I've noticed in the last

886

00:37:41,010 --> 00:37:37,480

few weeks the last week anyway that Mark

887

00:37:43,950 --> 00:37:41,020

Zuckerberg from facebook posted up a

888

00:37:45,360 --> 00:37:43,960

nice pictures cute picture of him and

889

00:37:48,330 --> 00:37:45,370

his daughter waiting at the doctor's

890

00:37:53,400 --> 00:37:48,340

office for her to get her vaccinations

891

00:37:56,880 --> 00:37:53,410

well the anti-vaccination brigade have

892

00:38:00,990 --> 00:37:56,890

lost the plot again and some of the

893

00:38:02,790 --> 00:38:01,000

responses that have been simply vile now

894

00:38:06,030 --> 00:38:02,800

I love to send them up as you well know

895

00:38:07,830 --> 00:38:06,040

i call them tho zany wacky outrageous

896

00:38:11,100 --> 00:38:07,840

people from the anti-vaccination brigade

897

00:38:14,010 --> 00:38:11,110

but don't make any mistake I take them

898

00:38:16,730 --> 00:38:14,020

very seriously they are in some

899

00:38:19,050 --> 00:38:16,740

situations simply dangerous people I

900

00:38:21,030 --> 00:38:19,060

think we'll follow up this story we'll

901  
00:38:24,180 --> 00:38:21,040  
see if we can have something about it on

902  
00:38:25,770 --> 00:38:24,190  
next week's show but in the meantime if

903  
00:38:28,110 --> 00:38:25,780  
you google that if you google Mark

904  
00:38:31,020 --> 00:38:28,120  
Zuckerberg and vaccination I think

905  
00:38:34,410 --> 00:38:31,030  
you'll see some of the violent venom

906  
00:38:36,750 --> 00:38:34,420  
lies that have been perpetrated good

907  
00:38:39,090 --> 00:38:36,760  
luck to Mark Zuckerberg I've got no

908  
00:38:42,330 --> 00:38:39,100  
special feelings towards him one way or

909  
00:38:44,610 --> 00:38:42,340  
the other and he seems to be a decent

910  
00:38:46,440 --> 00:38:44,620  
guy but he's certainly doing the right

911  
00:38:49,230 --> 00:38:46,450  
thing by getting his daughter vaccinated

912  
00:38:51,480 --> 00:38:49,240  
and I know he never misses the skeptic

913  
00:38:53,610 --> 00:38:51,490

zone hmm thank you again to our

914

00:38:55,230 --> 00:38:53,620

wonderful reporters Joe alabasta wow

915

00:38:58,590 --> 00:38:55,240

that was a great report this week on

916

00:39:00,690 --> 00:38:58,600

black selves thank you to Maynard who's

917

00:39:03,390 --> 00:39:00,700

always there with these microphone ready

918

00:39:05,910 --> 00:39:03,400

to ask the questions looking forward

919

00:39:08,130 --> 00:39:05,920

later on to more reports from our other

920

00:39:11,070 --> 00:39:08,140

reporters around dr. Regina of course

921

00:39:12,710 --> 00:39:11,080

the wonderful Heidi Robinson but for

922

00:39:19,420 --> 00:39:12,720

this week this is Richard Saunders

923

00:39:25,610 --> 00:39:21,860

you've been listening to the skeptics

924

00:39:28,550 --> 00:39:25,620

own podcast visit our website at wwc a

925

00:39:31,970 --> 00:39:28,560

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926

00:39:34,670 --> 00:39:31,980

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927

00:39:36,580 --> 00:39:34,680

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933

00:39:53,150 --> 00:39:51,540

the skeptic zone is an independent

934

00:39:55,580 --> 00:39:53,160

production the views and opinions

935

00:39:57,680 --> 00:39:55,590

expressed on the skeptic zone and not