

1  
00:00:20,699 --> 00:00:27,129  
hello and welcome to the skeptic zone

2  
00:00:23,500 --> 00:00:30,670  
episode number 64 for the eighth of

3  
00:00:27,129 --> 00:00:37,950  
january two thousand and ten or twenty

4  
00:00:30,670 --> 00:00:41,530  
ten no Alice can you say that 10 Oh 2010

5  
00:00:37,950 --> 00:00:43,930  
let's just stick with 2010 on this

6  
00:00:41,530 --> 00:00:46,270  
week's show we have a presentation given

7  
00:00:43,929 --> 00:00:49,058  
in 2005 at the Australian skeptics

8  
00:00:46,270 --> 00:00:51,520  
National Convention by loretta marin

9  
00:00:49,058 --> 00:00:54,369  
otherwise known as the jelly bean lady

10  
00:00:51,520 --> 00:00:57,460  
now her crusade is to rid the world of

11  
00:00:54,369 --> 00:01:00,459  
quack products like magnetic underlays

12  
00:00:57,460 --> 00:01:03,579  
and so forth using jelly beans as an

13  
00:01:00,460 --> 00:01:06,460  
example jelly bean power coming up in a

14  
00:01:03,579 --> 00:01:08,409  
few minutes after that a little report

15  
00:01:06,459 --> 00:01:10,750  
by dr. rate she and myself as we take a

16  
00:01:08,409 --> 00:01:13,090  
stroll down King Street in Newtown a

17  
00:01:10,750 --> 00:01:16,149  
suburb here in Sydney and visit a few

18  
00:01:13,090 --> 00:01:19,240  
pharmacies along the way that's followed

19  
00:01:16,149 --> 00:01:22,478  
by dr. rachy reports where she talks to

20  
00:01:19,239 --> 00:01:25,599  
dr. Sheena McGowan about parasites and

21  
00:01:22,478 --> 00:01:28,209  
malaria very interesting so sit back

22  
00:01:25,599 --> 00:01:32,399  
have a nice glass of yaks milk and enjoy

23  
00:01:28,209 --> 00:01:32,399  
this episode of the skeptic zone

24  
00:01:43,849 --> 00:01:50,129  
breast cancer survivor Loretta Marin is

25  
00:01:47,489 --> 00:01:53,158  
a long time crusader against quackery of

26  
00:01:50,129 --> 00:01:56,009  
all forms she is best known as the jelly

27  
00:01:53,159 --> 00:01:58,710  
bean lady and here in a talk given in

28  
00:01:56,009 --> 00:02:01,259  
2005 at the Australian skeptics National

29

00:01:58,709 --> 00:02:03,688  
Convention she discusses how jelly beans

30  
00:02:01,259 --> 00:02:11,009  
can often be better than magnetic

31  
00:02:03,688 --> 00:02:13,139  
therapy right first of all I show you

32  
00:02:11,008 --> 00:02:14,879  
what all this stuff is I i can to come

33  
00:02:13,139 --> 00:02:17,339  
to presentations with a truckload of

34  
00:02:14,879 --> 00:02:19,289  
things so one thing here is I'm very

35  
00:02:17,340 --> 00:02:21,209  
disappointed about this morning where

36  
00:02:19,289 --> 00:02:24,150  
we're not allowed to do that multi-level

37  
00:02:21,209 --> 00:02:25,560  
marketing because here I have something

38  
00:02:24,150 --> 00:02:28,170  
that we can all make a lot of money on

39  
00:02:25,560 --> 00:02:31,199  
thats my acupressure jelly bean

40  
00:02:28,169 --> 00:02:33,809  
bracelets my jelly bean pain relief

41  
00:02:31,199 --> 00:02:35,189  
jewelry and my jelly bean detox pads the

42  
00:02:33,810 --> 00:02:38,299  
ones that you stick on your feet and

43  
00:02:35,189 --> 00:02:42,209

overnight sucks out all the toxins and

44

00:02:38,299 --> 00:02:44,639

there's also the jelly bean herbal tea

45

00:02:42,209 --> 00:02:46,799

in it generally is it heard because it

46

00:02:44,639 --> 00:02:49,409

comes from sugar herbs come from plum

47

00:02:46,799 --> 00:02:51,569

and this is my other one which i think

48

00:02:49,409 --> 00:02:54,810

is really good this is my multi

49

00:02:51,568 --> 00:02:56,129

homeopathic remedy it may cure every

50

00:02:54,810 --> 00:02:59,039

disease and health condition and in

51

00:02:56,129 --> 00:03:01,739

there it's got vital force and memory of

52

00:02:59,039 --> 00:03:04,500

the remedy and you all watched second

53

00:03:01,739 --> 00:03:06,780

opinion so you do understand homeopathic

54

00:03:04,500 --> 00:03:09,299

remedies in that it's about the memory

55

00:03:06,780 --> 00:03:10,769

of what you've put in there now we do

56

00:03:09,299 --> 00:03:12,000

have some good medication here that

57

00:03:10,769 --> 00:03:15,989

really doesn't have too many side

58  
00:03:12,000 --> 00:03:18,150  
effects I put the pills there and this

59  
00:03:15,989 --> 00:03:20,609  
is the placebo pills the famous placebo

60  
00:03:18,150 --> 00:03:23,310  
pills proven should be thirty percent

61  
00:03:20,609 --> 00:03:26,549  
effective ensuring everything proven by

62  
00:03:23,310 --> 00:03:28,739  
thousands of clinical trials all over

63  
00:03:26,549 --> 00:03:31,799  
the world so that's one thing that I do

64  
00:03:28,739 --> 00:03:34,439  
is I haven't found any side effects on

65  
00:03:31,799 --> 00:03:37,019  
it yet in fact it's actually good for

66  
00:03:34,439 --> 00:03:39,930  
diabetics and people giving up smoking

67  
00:03:37,019 --> 00:03:41,669  
because they go hypoglycemic and I

68  
00:03:39,930 --> 00:03:43,230  
believe there's some new pace that you

69  
00:03:41,669 --> 00:03:45,420  
put on your ulcers that's got some

70  
00:03:43,229 --> 00:03:47,639  
glucose base but that's medical and

71  
00:03:45,419 --> 00:03:49,259  
that's not my area but anything to do

72  
00:03:47,639 --> 00:03:49,759  
with that term jelly beans i'm

73  
00:03:49,259 --> 00:03:52,250  
interested

74  
00:03:49,759 --> 00:03:54,169  
in a guy so that when he makes bit he

75  
00:03:52,250 --> 00:03:57,079  
puts a jack a black jellybeans and it

76  
00:03:54,169 --> 00:03:59,059  
stops all the the GU going unit so jelly

77  
00:03:57,079 --> 00:04:00,950  
beans are very very handy sorts of

78  
00:03:59,060 --> 00:04:04,420  
things to have now I've got some

79  
00:04:00,949 --> 00:04:06,649  
booklets here did you all get one oh

80  
00:04:04,419 --> 00:04:08,869  
good because there's plenty left if

81  
00:04:06,650 --> 00:04:11,260  
anybody wants some more and you would

82  
00:04:08,870 --> 00:04:16,699  
have probably noticed in the centerfold

83  
00:04:11,259 --> 00:04:18,949  
Geraldine's a centerfold girl as much

84  
00:04:16,699 --> 00:04:25,699  
information as I could put in about this

85  
00:04:18,949 --> 00:04:28,310  
particular adverse events I've got the

86

00:04:25,699 --> 00:04:30,500  
iridology chart there so if anybody has

87  
00:04:28,310 --> 00:04:33,500  
any problems later on I can certainly

88  
00:04:30,500 --> 00:04:35,300  
help Oh wrong one when this came out

89  
00:04:33,500 --> 00:04:39,579  
they had an invented electricity so I

90  
00:04:35,300 --> 00:04:41,750  
think they must have done it by this and

91  
00:04:39,579 --> 00:04:42,978  
compliments of Geraldine now there's

92  
00:04:41,750 --> 00:04:44,660  
only one person in the world like an

93  
00:04:42,978 --> 00:04:47,300  
email and say hello Geraldine do you

94  
00:04:44,660 --> 00:04:48,919  
have an eyeball and she said yes I've

95  
00:04:47,300 --> 00:04:51,439  
got an eyeball a kidney and a heart and

96  
00:04:48,918 --> 00:04:54,948  
she gave them to me for my presentations

97  
00:04:51,439 --> 00:05:00,079  
as well over here is my homie who's open

98  
00:04:54,949 --> 00:05:03,590  
that there's a snake and the spider

99  
00:05:00,079 --> 00:05:10,370  
missing now calm down they're natural so

100  
00:05:03,589 --> 00:05:14,448

they say as anybody just quite look

101

00:05:10,370 --> 00:05:20,149

around as anybody got all right wretches

102

00:05:14,449 --> 00:05:22,280

over there come on Rex Rex come on just

103

00:05:20,149 --> 00:05:31,310

just throwing these are good he's a good

104

00:05:22,279 --> 00:05:34,869

catch I'm finally now the Cobra and

105

00:05:31,310 --> 00:05:34,870

rattlesnake is somewhere around here

106

00:05:38,978 --> 00:05:46,569

come on sweetheart now these are genuine

107

00:05:42,680 --> 00:05:46,569

homeopathic basis

108

00:05:47,910 --> 00:05:53,770

go ahead the anthrax we've got the air

109

00:05:51,639 --> 00:05:57,160

tracks i think but he would keep

110

00:05:53,769 --> 00:05:59,379

stealing that I've got no idea why it's

111

00:05:57,160 --> 00:06:01,150

all natural perfectly safe and the

112

00:05:59,379 --> 00:06:07,120

citric acid in the mercury and the

113

00:06:01,149 --> 00:06:10,329

caffeine caffeine and there's the

114

00:06:07,120 --> 00:06:12,340

million dollars still there James

115  
00:06:10,329 --> 00:06:14,139  
Randy's million dollars for anyone

116  
00:06:12,339 --> 00:06:15,819  
homeopathic remedy that can be proven

117  
00:06:14,139 --> 00:06:17,710  
I've offered that money to a lot of

118  
00:06:15,819 --> 00:06:20,860  
people and they've never taken me up on

119  
00:06:17,709 --> 00:06:24,310  
it now before I came I had trouble

120  
00:06:20,860 --> 00:06:26,439  
sleeping so i took my homeopathic remedy

121  
00:06:24,310 --> 00:06:29,680  
for flipping which is one drop of

122  
00:06:26,439 --> 00:06:34,300  
caffeine in a swimming pool and for

123  
00:06:29,680 --> 00:06:39,879  
those of you that don't know homeopathy

124  
00:06:34,300 --> 00:06:41,168  
it's one drop in now i did this last

125  
00:06:39,879 --> 00:06:45,430  
time and i had to go round the board

126  
00:06:41,168 --> 00:06:48,430  
twice now honestly you know those kids

127  
00:06:45,430 --> 00:06:51,879  
with critical thinking do you really

128  
00:06:48,430 --> 00:06:55,060  
think that one drop in that many will

129  
00:06:51,879 --> 00:06:57,850  
have any effect at all homeopathy don't

130  
00:06:55,060 --> 00:07:02,439  
knock unless you try it and I thought

131  
00:06:57,850 --> 00:07:07,120  
they can can't possibly be real huh so

132  
00:07:02,439 --> 00:07:09,219  
I've written on here 300,000 homeopaths

133  
00:07:07,120 --> 00:07:11,709  
and 40 homeopathic university

134  
00:07:09,220 --> 00:07:16,840  
universities can't be wrong so therefore

135  
00:07:11,709 --> 00:07:18,879  
homeopathy must work if I do that for

136  
00:07:16,839 --> 00:07:22,149  
presentations for seniors I have a lot

137  
00:07:18,879 --> 00:07:24,339  
of fun doing it I've also had a lot of

138  
00:07:22,149 --> 00:07:28,329  
very negative feedback from the people

139  
00:07:24,339 --> 00:07:30,519  
that like their natural therapy and let

140  
00:07:28,329 --> 00:07:32,649  
me actually quite abusive live even step

141  
00:07:30,519 --> 00:07:33,788  
made some fairly personal statements

142  
00:07:32,649 --> 00:07:36,179  
about me as well which I thought was

143

00:07:33,788 --> 00:07:39,639  
quite good because I will use it all for

144  
00:07:36,180 --> 00:07:41,949  
writing articles and though the first

145  
00:07:39,639 --> 00:07:45,728  
one I'd like to talk about is how I

146  
00:07:41,949 --> 00:07:48,009  
became the power of one in situations

147  
00:07:45,728 --> 00:07:49,930  
whereby somebody famous gets an illness

148  
00:07:48,009 --> 00:07:53,259  
we talk christopher region is broken

149  
00:07:49,930 --> 00:07:54,639  
back Michael J Fox what they do is they

150  
00:07:53,259 --> 00:07:56,319  
suddenly champion the cause of that

151  
00:07:54,639 --> 00:07:59,319  
illness and it's fantastic that they do

152  
00:07:56,319 --> 00:08:01,120  
that because they use their life skills

153  
00:07:59,319 --> 00:08:03,459  
and their position to raise awareness

154  
00:08:01,120 --> 00:08:06,370  
and raise money for research how good is

155  
00:08:03,459 --> 00:08:09,009  
that my favorite is Lance Armstrong now

156  
00:08:06,370 --> 00:08:11,769  
he rides a bicycle for you ladies that

157  
00:08:09,009 --> 00:08:15,399

don't follow the Tour de France not an

158

00:08:11,769 --> 00:08:17,049

exercise bicycle a proper one in 1996

159

00:08:15,399 --> 00:08:19,779

this guy was rated number one in the

160

00:08:17,050 --> 00:08:24,220

world as a cyclist you know with a

161

00:08:19,779 --> 00:08:30,369

little cute bendix outfit big thick

162

00:08:24,220 --> 00:08:34,139

thighs any rat dog skinny though these

163

00:08:30,370 --> 00:08:36,159

guys anyway he was diagnosed with cancer

164

00:08:34,139 --> 00:08:39,549

1996 he was given a twenty percent

165

00:08:36,159 --> 00:08:42,459

chance of surviving he had really

166

00:08:39,549 --> 00:08:43,839

radical chemotherapy all that kind of

167

00:08:42,460 --> 00:08:45,400

stuff and he decided he wasn't going to

168

00:08:43,840 --> 00:08:47,139

die he was going to do everything he

169

00:08:45,399 --> 00:08:50,639

could and for those of you that watch

170

00:08:47,139 --> 00:08:53,529

the Tour de France he won it for the

171

00:08:50,639 --> 00:08:56,679

just a couple of weeks here I thought

172  
00:08:53,529 --> 00:08:58,569  
where that guy is inspirational and he's

173  
00:08:56,679 --> 00:09:01,839  
doing so much to raise awareness for

174  
00:08:58,570 --> 00:09:04,750  
these things too sometimes it takes some

175  
00:09:01,840 --> 00:09:07,180  
really negative event before we'll go

176  
00:09:04,750 --> 00:09:09,700  
out and a lemon follow a passion that we

177  
00:09:07,179 --> 00:09:11,259  
have to try to make some changes the

178  
00:09:09,700 --> 00:09:13,750  
fact that you're keen to this conference

179  
00:09:11,259 --> 00:09:16,120  
suggests to me that perhaps there isn't

180  
00:09:13,750 --> 00:09:18,580  
a perfect world it and you've all got

181  
00:09:16,120 --> 00:09:21,039  
some agenda that you want would like to

182  
00:09:18,580 --> 00:09:22,360  
see changed I say with creationist when

183  
00:09:21,039 --> 00:09:24,789  
they work I had to get the three fast

184  
00:09:22,360 --> 00:09:27,360  
and bloody dinosaurs on the Ark's I'm

185  
00:09:24,789 --> 00:09:27,360  
within

186  
00:09:28,769 --> 00:09:35,199  
third every day in Australia 30 women

187  
00:09:31,899 --> 00:09:39,909  
are diagnosed with cancer breast cancer

188  
00:09:35,200 --> 00:09:41,590  
five died unfortunately first of october

189  
00:09:39,909 --> 00:09:44,199  
two thousand three i was one of those

190  
00:09:41,590 --> 00:09:46,810  
women i'm sitting there with the

191  
00:09:44,200 --> 00:09:48,879  
perfectly straight face doctors telling

192  
00:09:46,809 --> 00:09:51,579  
me about these horrific things that

193  
00:09:48,879 --> 00:09:54,070  
could happen to me no cutting and

194  
00:09:51,580 --> 00:09:56,230  
cutting and burning and drugs and I just

195  
00:09:54,070 --> 00:09:59,260  
couldn't believe I'm a digital I'm fine

196  
00:09:56,230 --> 00:10:01,269  
I feel fantastic now the only reason I'm

197  
00:09:59,259 --> 00:10:04,000  
going to live to be a hundred is because

198  
00:10:01,269 --> 00:10:09,399  
of Orthodox mentor because they got me

199  
00:10:04,000 --> 00:10:12,190  
early bit of a snip bit of a burn and a

200

00:10:09,399 --> 00:10:15,279  
lot of help to make sure that I'm going

201  
00:10:12,190 --> 00:10:17,140  
to be one of the survivors when I had

202  
00:10:15,279 --> 00:10:20,319  
for those of you that have been touched

203  
00:10:17,139 --> 00:10:22,659  
with cancer most of you would have might

204  
00:10:20,320 --> 00:10:24,510  
be a neighbor friend family member even

205  
00:10:22,659 --> 00:10:27,179  
yourselves or some gentlemen here before

206  
00:10:24,509 --> 00:10:30,250  
you know that the treatment is very long

207  
00:10:27,179 --> 00:10:32,529  
for me it was four months from my

208  
00:10:30,250 --> 00:10:35,289  
diagnosis to the last treatment the last

209  
00:10:32,529 --> 00:10:37,299  
eight weeks was driving a to our return

210  
00:10:35,289 --> 00:10:40,990  
trip into brisbane for like twenty

211  
00:10:37,299 --> 00:10:42,519  
second radiotherapy treatment and during

212  
00:10:40,990 --> 00:10:44,799  
those times sometimes the machine would

213  
00:10:42,519 --> 00:10:46,840  
be down and I'd be an hour or two in the

214  
00:10:44,799 --> 00:10:49,089

waiting room I talked to the other

215

00:10:46,840 --> 00:10:50,800

patients back sometimes I had to talk to

216

00:10:49,090 --> 00:10:53,110

them through a voice books these were

217

00:10:50,799 --> 00:10:55,089

wonderful people you know mothers with

218

00:10:53,110 --> 00:10:56,830

little children there they're all going

219

00:10:55,090 --> 00:10:59,680

through the same horrific events that i

220

00:10:56,830 --> 00:11:01,720

was and i know that a lot of them won't

221

00:10:59,679 --> 00:11:04,059

be here now they'll be dead or they'll

222

00:11:01,720 --> 00:11:05,470

be dead soon some of them were really at

223

00:11:04,059 --> 00:11:07,959

the end you know being wheeled in an

224

00:11:05,470 --> 00:11:10,300

hour if i can achieve anything through

225

00:11:07,960 --> 00:11:12,400

getting my cancer through the Sun that

226

00:11:10,299 --> 00:11:14,199

I'm having with people like yourself I

227

00:11:12,399 --> 00:11:16,059

will dedicate it to those people because

228

00:11:14,200 --> 00:11:19,720

they sure didn't deserve what they're

229

00:11:16,059 --> 00:11:21,729

getting wonderful people Nationals

230

00:11:19,720 --> 00:11:23,680

seniors Association is anybody a member

231

00:11:21,730 --> 00:11:27,210

of national seniors Association like all

232

00:11:23,679 --> 00:11:27,209

the cheap stuff right

233

00:11:29,139 --> 00:11:36,889

after the eight weeks you know too young

234

00:11:34,220 --> 00:11:38,778

not too young to get a bargain after the

235

00:11:36,889 --> 00:11:40,490

eight weeks of going in and out one day

236

00:11:38,778 --> 00:11:43,458

it was suddenly over and I woke up the

237

00:11:40,490 --> 00:11:46,129

next day and I was really a bit of a

238

00:11:43,458 --> 00:11:48,559

zombie so you're just there your whole

239

00:11:46,129 --> 00:11:49,939

life suddenly was planning oh we got to

240

00:11:48,559 --> 00:11:51,469

get there by 11 every day is a different

241

00:11:49,940 --> 00:11:53,569

time I'm going to get there by eleven

242

00:11:51,470 --> 00:11:55,278

o'clock today that's it that was your

243  
00:11:53,568 --> 00:11:58,309  
whole day taken over and recovering and

244  
00:11:55,278 --> 00:12:00,669  
at the end of it you burnt you totally

245  
00:11:58,309 --> 00:12:03,049  
met all these amazing people you

246  
00:12:00,669 --> 00:12:05,568  
sometimes really angry I was sometimes

247  
00:12:03,049 --> 00:12:07,370  
really anxious sad shocked all these

248  
00:12:05,568 --> 00:12:10,219  
things it was a rollercoaster trip for

249  
00:12:07,370 --> 00:12:12,230  
me and really your memories gone you

250  
00:12:10,220 --> 00:12:13,730  
can't remember names you talk about that

251  
00:12:12,230 --> 00:12:15,860  
bloke with the colorful shirt in the

252  
00:12:13,730 --> 00:12:18,680  
front row that he got from salvation

253  
00:12:15,860 --> 00:12:21,139  
army data you end up great long

254  
00:12:18,679 --> 00:12:23,059  
sentences and they fell for it or Peter

255  
00:12:21,139 --> 00:12:25,610  
or this for that and you can't believe

256  
00:12:23,059 --> 00:12:29,179  
where's my memory God that most of us

257

00:12:25,610 --> 00:12:32,690  
come back but I talked to my GP who is

258  
00:12:29,179 --> 00:12:34,309  
over there who name is here being

259  
00:12:32,690 --> 00:12:36,230  
fantastic to work with her on the

260  
00:12:34,309 --> 00:12:38,509  
website and I said what's wrong with me

261  
00:12:36,230 --> 00:12:40,909  
she said you've got traumatic stress and

262  
00:12:38,509 --> 00:12:44,448  
I thought well she's right that's a

263  
00:12:40,909 --> 00:12:46,458  
trauma you know and so I understand now

264  
00:12:44,448 --> 00:12:50,419  
that what I was going through was quite

265  
00:12:46,458 --> 00:12:53,778  
a normal thing to happen national scene

266  
00:12:50,419 --> 00:12:56,360  
is Association 300,000 members round

267  
00:12:53,778 --> 00:13:00,169  
Australia the most vulnerable people on

268  
00:12:56,360 --> 00:13:03,589  
the planet they're over 50s what do they

269  
00:13:00,169 --> 00:13:05,149  
do view about 10 years ago I went back

270  
00:13:03,589 --> 00:13:06,949  
to union i did basic psychology

271  
00:13:05,149 --> 00:13:08,208

advertising English just because i

272

00:13:06,948 --> 00:13:09,979

thought i would like to learn about

273

00:13:08,208 --> 00:13:12,559

those things so really all that means as

274

00:13:09,980 --> 00:13:15,438

i know i've got the books but i know i'm

275

00:13:12,559 --> 00:13:19,479

good at looking things up i could read

276

00:13:15,438 --> 00:13:23,088

ads so I open the book page after page

277

00:13:19,480 --> 00:13:25,938

herbal remedy for sex for you know for

278

00:13:23,089 --> 00:13:29,240

knees for joints all famous page and

279

00:13:25,938 --> 00:13:31,730

page and then page after page of miracle

280

00:13:29,240 --> 00:13:33,680

cure for cancer by this net repair for

281

00:13:31,730 --> 00:13:35,089

this cancer for that and then products

282

00:13:33,679 --> 00:13:37,688

that clearly defied physics and

283

00:13:35,089 --> 00:13:40,970

physiology I saw this this isn't right

284

00:13:37,688 --> 00:13:43,490

so I email the food and drugs

285

00:13:40,970 --> 00:13:46,519

illustration about one product and I

286  
00:13:43,490 --> 00:13:47,959  
started researching stuff compile the

287  
00:13:46,519 --> 00:13:49,938  
great little lesson you know saying that

288  
00:13:47,958 --> 00:13:52,549  
these things that this is the proof this

289  
00:13:49,938 --> 00:13:55,490  
is the information sent it into them and

290  
00:13:52,549 --> 00:13:59,000  
of course what did they do yeah yeah

291  
00:13:55,490 --> 00:14:01,180  
nothing and at that time I went to my

292  
00:13:59,000 --> 00:14:03,919  
oncologist I had a meeting with her and

293  
00:14:01,179 --> 00:14:05,838  
she said what are you doing Loretta and

294  
00:14:03,919 --> 00:14:08,929  
I said you know I said I'm trying to

295  
00:14:05,839 --> 00:14:11,389  
fight yeah like a probably 20 billion

296  
00:14:08,929 --> 00:14:13,188  
dollar industry on my own and I said

297  
00:14:11,389 --> 00:14:16,220  
it's get me down a bit I'm just feeling

298  
00:14:13,188 --> 00:14:19,370  
a bit fragile I think I'm going to give

299  
00:14:16,220 --> 00:14:21,470  
up she said don't give up Loretta you'd

300  
00:14:19,370 --> 00:14:24,620  
be surprised how much power one person

301  
00:14:21,470 --> 00:14:26,870  
has so I went home turn on the computer

302  
00:14:24,620 --> 00:14:30,470  
and I read you just a little bit of this

303  
00:14:26,870 --> 00:14:33,860  
because I was really angry and I thought

304  
00:14:30,470 --> 00:14:37,579  
right I just started off very festively

305  
00:14:33,860 --> 00:14:39,438  
as I am we I demand you apologize to all

306  
00:14:37,578 --> 00:14:41,179  
your members and this is a couple of

307  
00:14:39,438 --> 00:14:43,909  
things not only do you print ads for

308  
00:14:41,179 --> 00:14:45,558  
cracks natural pest quackery pulls the

309  
00:14:43,909 --> 00:14:47,688  
sex and weight loss and the possibility

310  
00:14:45,558 --> 00:14:49,850  
of some pesticide thrown in for good

311  
00:14:47,688 --> 00:14:51,349  
measure and banned products but your

312  
00:14:49,850 --> 00:14:53,389  
policies even prevent quality

313  
00:14:51,350 --> 00:14:56,449  
information being made available to your

314

00:14:53,389 --> 00:14:58,068  
computer literate readers and I had

315  
00:14:56,448 --> 00:15:00,229  
asked the computer section to put in our

316  
00:14:58,068 --> 00:15:02,659  
timers and tinnitus links for some new

317  
00:15:00,230 --> 00:15:04,610  
revolution II and they said throw this

318  
00:15:02,659 --> 00:15:07,808  
is for fun I'm not a lot of health stuff

319  
00:15:04,610 --> 00:15:09,949  
in and this guy was a retired pharmacist

320  
00:15:07,808 --> 00:15:11,719  
and I ended it I think you should

321  
00:15:09,948 --> 00:15:13,729  
apologize your membership for their lost

322  
00:15:11,720 --> 00:15:15,319  
opportunities to give them advice and

323  
00:15:13,730 --> 00:15:17,329  
hope for their quality of life now and

324  
00:15:15,318 --> 00:15:19,278  
in the future and for the total lack of

325  
00:15:17,328 --> 00:15:21,019  
understanding in peddling snake oil

326  
00:15:19,278 --> 00:15:22,879  
products and services and I went and

327  
00:15:21,019 --> 00:15:24,948  
packed every email in that bloody

328  
00:15:22,879 --> 00:15:28,639

newspaper and fax it off to the mouth

329

00:15:24,948 --> 00:15:32,269

all that I've done all I cared anyway I

330

00:15:28,639 --> 00:15:34,100

got back to me they said Loretta could

331

00:15:32,269 --> 00:15:38,269

you put an unemotional argument to the

332

00:15:34,100 --> 00:15:40,009

editor so I penetrable wait in fact I've

333

00:15:38,269 --> 00:15:41,839

ticked away pretty well up until last

334

00:15:40,009 --> 00:15:43,399

week away from the email wrote a nice

335

00:15:41,839 --> 00:15:46,069

letter that just give me a couple of

336

00:15:43,399 --> 00:15:49,549

weeks to put my argument together and my

337

00:15:46,068 --> 00:15:51,649

argument was that a lot of people over

338

00:15:49,549 --> 00:15:54,198

50 the only non financial magazine they

339

00:15:51,649 --> 00:15:54,549

get is the National seniors Association

340

00:15:54,198 --> 00:15:56,319

one

341

00:15:54,549 --> 00:15:58,838

that's all I get and they can't afford

342

00:15:56,320 --> 00:16:01,300

the six dollars for women's weekly the

343  
00:15:58,839 --> 00:16:03,640  
other one is that unfortunately over the

344  
00:16:01,299 --> 00:16:05,528  
people over fifty fifty percent of them

345  
00:16:03,639 --> 00:16:07,629  
have clinical evidence of Alzheimer

346  
00:16:05,528 --> 00:16:09,250  
that's not too bad and they've all got a

347  
00:16:07,629 --> 00:16:11,439  
bit of a memory problem there and all

348  
00:16:09,250 --> 00:16:13,208  
these things I linked to websites I'm

349  
00:16:11,440 --> 00:16:14,470  
also only two percent of people are

350  
00:16:13,208 --> 00:16:16,509  
going to have enough money to retire oh

351  
00:16:14,470 --> 00:16:21,220  
and I went on with all the facts and

352  
00:16:16,509 --> 00:16:23,409  
figures and i'm pleased to say that the

353  
00:16:21,220 --> 00:16:26,230  
dodgy health products are gone the

354  
00:16:23,409 --> 00:16:27,429  
naturopaths are gone some of the pools

355  
00:16:26,230 --> 00:16:30,310  
are still there but there were only two

356  
00:16:27,429 --> 00:16:34,769  
pages on it so one person can make a

357  
00:16:30,309 --> 00:16:34,768  
difference in one thing another one sir

358  
00:16:35,970 --> 00:16:40,060  
I'd rather get a big gun know about this

359  
00:16:38,528 --> 00:16:42,269  
because you know Geraldine I've got

360  
00:16:40,059 --> 00:16:45,099  
something to boast to that gives a damn

361  
00:16:42,269 --> 00:16:47,169  
the local new page that had the detox

362  
00:16:45,100 --> 00:16:49,149  
pads you know not not the proper ones

363  
00:16:47,169 --> 00:16:50,439  
but those artificial one said you know

364  
00:16:49,149 --> 00:16:53,350  
they put out the front of the net

365  
00:16:50,440 --> 00:16:56,350  
repairs places and so I attached a

366  
00:16:53,350 --> 00:17:00,070  
triple c letter that said the a trip

367  
00:16:56,350 --> 00:17:01,959  
will see is seeking to keeping an eye on

368  
00:17:00,070 --> 00:17:04,058  
the media that's exploiting the

369  
00:17:01,958 --> 00:17:06,668  
vulnerable and that's why i always put

370  
00:17:04,058 --> 00:17:09,279  
senior on everything because seniors I

371

00:17:06,669 --> 00:17:13,720  
seem to be vulnerable whereas adults out

372  
00:17:09,279 --> 00:17:14,949  
for some reason so I tell people seniors

373  
00:17:13,720 --> 00:17:16,299  
you know if it's not to achieve

374  
00:17:14,949 --> 00:17:18,750  
grandmother but everything I've written

375  
00:17:16,299 --> 00:17:21,159  
is for anybody else anyways complaint

376  
00:17:18,750 --> 00:17:23,078  
and he wrote back thank you for bringing

377  
00:17:21,160 --> 00:17:25,300  
the advertisement to our attention we

378  
00:17:23,078 --> 00:17:27,099  
will certainly not be accepting any

379  
00:17:25,299 --> 00:17:33,039  
further advertising from this particular

380  
00:17:27,099 --> 00:17:35,740  
person I thought you champion one person

381  
00:17:33,039 --> 00:17:38,109  
can make a difference now the thing

382  
00:17:35,740 --> 00:17:40,089  
about teams right just don't like to

383  
00:17:38,109 --> 00:17:42,129  
mention the team business but the

384  
00:17:40,089 --> 00:17:44,769  
skeptics have a reputation that the

385  
00:17:42,130 --> 00:17:46,960

world's worst team people there's three

386

00:17:44,769 --> 00:17:48,759

thousand of you all doing three thousand

387

00:17:46,960 --> 00:17:50,500

different things and no one wants to

388

00:17:48,759 --> 00:17:53,740

help the guy on the left or the right

389

00:17:50,500 --> 00:17:55,829

and it the skeptics will readily admit

390

00:17:53,740 --> 00:17:58,480

that but I want to put this on record

391

00:17:55,829 --> 00:18:00,369

that's from the first day of my journey

392

00:17:58,480 --> 00:18:02,650

where I'm wobbling along on my bike with

393

00:18:00,369 --> 00:18:05,649

the training wheels Barry was there

394

00:18:02,650 --> 00:18:06,830

hanging on the back giving me advice and

395

00:18:05,650 --> 00:18:09,769

guidance in the tea

396

00:18:06,829 --> 00:18:12,109

were there pushing me along and then

397

00:18:09,769 --> 00:18:14,509

when finally I was going good it's not

398

00:18:12,109 --> 00:18:16,609

bad they were cheering and clapping and

399

00:18:14,509 --> 00:18:18,079

telling me to go I could not have I

400  
00:18:16,609 --> 00:18:20,389  
would not have had the self-confidence

401  
00:18:18,079 --> 00:18:22,579  
to do what I have done today if it

402  
00:18:20,390 --> 00:18:26,390  
wasn't for Barry dr. Richard Gordon

403  
00:18:22,579 --> 00:18:29,778  
Richard Saunders Geraldine Moses Bob

404  
00:18:26,390 --> 00:18:31,340  
Bruce Lily and Derek Laurie Eddie and if

405  
00:18:29,778 --> 00:18:34,880  
you have quite a few others i don't even

406  
00:18:31,339 --> 00:18:37,879  
know who took the time to email me or to

407  
00:18:34,880 --> 00:18:39,080  
complain about something else the one

408  
00:18:37,880 --> 00:18:42,200  
thing about complaining i will mention

409  
00:18:39,079 --> 00:18:46,189  
women love complaining going girls

410  
00:18:42,200 --> 00:18:48,980  
complaining or right and that's how I

411  
00:18:46,190 --> 00:18:52,100  
got the name the power of one if me and

412  
00:18:48,980 --> 00:18:54,620  
a tiny team can achieve so much just

413  
00:18:52,099 --> 00:18:56,808  
imagine how much we could do if a few

414  
00:18:54,619 --> 00:18:59,689  
more of you got on and just in anything

415  
00:18:56,808 --> 00:19:04,908  
even positive thoughts will help and

416  
00:18:59,690 --> 00:19:07,250  
that's why I put this out now curious if

417  
00:19:04,909 --> 00:19:08,990  
I put that one this was the photo taken

418  
00:19:07,250 --> 00:19:12,200  
now what have I achieved ok apart from

419  
00:19:08,990 --> 00:19:15,679  
that I will shortly be featured in new

420  
00:19:12,200 --> 00:19:17,298  
idea I'm not sure when and they took a

421  
00:19:15,679 --> 00:19:18,649  
bit of all these photos on me this is

422  
00:19:17,298 --> 00:19:21,200  
the best one I thought to the last photo

423  
00:19:18,648 --> 00:19:24,259  
ever want taken I look quite good in it

424  
00:19:21,200 --> 00:19:26,990  
and I thought what can I do can i

425  
00:19:24,259 --> 00:19:30,109  
approach new idea about putting in

426  
00:19:26,990 --> 00:19:33,079  
something in gb places in surgeries to

427  
00:19:30,109 --> 00:19:34,548  
let patients do their own research the

428

00:19:33,079 --> 00:19:38,569  
one thing i am good at is being a

429  
00:19:34,548 --> 00:19:42,288  
patient other thing too Australian

430  
00:19:38,569 --> 00:19:46,939  
doctor now holy GPS get australian GP CA

431  
00:19:42,288 --> 00:19:52,000  
and dr. jun 17 check your copy the very

432  
00:19:46,940 --> 00:19:52,000  
very first ever patient story is why

433  
00:19:56,759 --> 00:20:01,599  
and that comes from nagging McCracken

434  
00:19:59,440 --> 00:20:05,288  
emailing people but unnecessarily about

435  
00:20:01,599 --> 00:20:08,459  
the skills that I have now it just have

436  
00:20:05,288 --> 00:20:12,160  
a quick story about the magnetic story

437  
00:20:08,460 --> 00:20:14,440  
Geraldine as I say I keep t6 in my life

438  
00:20:12,160 --> 00:20:17,980  
and attend different places I first got

439  
00:20:14,440 --> 00:20:19,538  
to know when they did the booklet and I

440  
00:20:17,980 --> 00:20:22,179  
thought I was so smart I thought all

441  
00:20:19,538 --> 00:20:24,730  
right a booklet I chose you i think i

442  
00:20:22,179 --> 00:20:27,880

was on the drugs in or something and I

443

00:20:24,730 --> 00:20:31,150

thought I've got to adverse events look

444

00:20:27,880 --> 00:20:33,580

as a person you can talk to a person I

445

00:20:31,150 --> 00:20:36,370

bad drugs awesome how good is that a

446

00:20:33,579 --> 00:20:38,500

person and I so good it contact us I

447

00:20:36,369 --> 00:20:40,149

thought there's a line it's in Brisbane

448

00:20:38,500 --> 00:20:43,750

you can actually bring somebody up

449

00:20:40,150 --> 00:20:46,450

that's a fantastic anyway so I thought

450

00:20:43,750 --> 00:20:49,058

I'll ask permission and you can see it's

451

00:20:46,450 --> 00:20:51,700

in why it's so important to me talk to a

452

00:20:49,058 --> 00:20:53,950

person so I did so I got on to someone

453

00:20:51,700 --> 00:20:55,600

they said I said can I use the adverse

454

00:20:53,950 --> 00:20:58,440

event stuff you love to talk to

455

00:20:55,599 --> 00:21:01,119

Geraldine Moses that woman on the radio

456

00:20:58,440 --> 00:21:03,190

so I ringing up Geraldine and I say you

457  
00:21:01,119 --> 00:21:04,959  
know trying to sound like I'm spooked a

458  
00:21:03,190 --> 00:21:08,320  
bit she says what's the objective of you

459  
00:21:04,960 --> 00:21:10,779  
booklet Oh to help seniors get in make

460  
00:21:08,319 --> 00:21:12,970  
informed choices on Orthodox and

461  
00:21:10,779 --> 00:21:14,859  
complementary and alternative I thought

462  
00:21:12,970 --> 00:21:18,220  
Stan freeze that she said what do you

463  
00:21:14,859 --> 00:21:19,509  
know about cam I said nothing I said I

464  
00:21:18,220 --> 00:21:22,990  
direct the mall to the skeptics

465  
00:21:19,509 --> 00:21:26,019  
dictionary 64 million dollar answer

466  
00:21:22,990 --> 00:21:27,460  
after that Geraldine couldn't do enough

467  
00:21:26,019 --> 00:21:29,079  
to help the woman is right in the

468  
00:21:27,460 --> 00:21:31,600  
Fleming thesis she's got a one year old

469  
00:21:29,079 --> 00:21:34,779  
kid she takes a booklet I'm very black

470  
00:21:31,599 --> 00:21:37,269  
and white she softened it fixed it she

471  
00:21:34,779 --> 00:21:40,960  
hasn't got rid of me since we're still

472  
00:21:37,269 --> 00:21:43,150  
doing juro right and that was her and I

473  
00:21:40,960 --> 00:21:45,490  
thank you for doing that and even all

474  
00:21:43,150 --> 00:21:47,019  
right the magnetic therapy I tell

475  
00:21:45,490 --> 00:21:48,929  
Geraldine should know me at a party I'm

476  
00:21:47,019 --> 00:21:51,579  
wandering around after people's magnets

477  
00:21:48,929 --> 00:21:58,179  
and this is the wonderful device itself

478  
00:21:51,579 --> 00:22:00,339  
who my beloved gas meter people have

479  
00:21:58,179 --> 00:22:02,500  
admitted even my friends right the best

480  
00:22:00,339 --> 00:22:03,949  
thing with my friends when I decided I

481  
00:22:02,500 --> 00:22:07,429  
was going to prove make

482  
00:22:03,950 --> 00:22:09,769  
character with they said to me

483  
00:22:07,429 --> 00:22:12,980  
after several attempts to show them as i

484  
00:22:09,769 --> 00:22:14,599  
mentioned in my articles they said all

485

00:22:12,980 --> 00:22:16,308  
right Loretta we believe you and I leave

486  
00:22:14,599 --> 00:22:18,379  
your bloody magnets at home and i

487  
00:22:16,308 --> 00:22:21,740  
thought no i never did but that was

488  
00:22:18,380 --> 00:22:24,080  
enough from my friends to prove that it

489  
00:22:21,740 --> 00:22:28,519  
I could show them that they were being

490  
00:22:24,079 --> 00:22:31,819  
defrauded that the jellybean under life

491  
00:22:28,519 --> 00:22:34,038  
I prepared these for Gerald to show

492  
00:22:31,819 --> 00:22:36,109  
Geraldine but they weren't like this

493  
00:22:34,038 --> 00:22:38,690  
there are two raggy bits of material

494  
00:22:36,109 --> 00:22:41,329  
stapled together and I had them ready to

495  
00:22:38,690 --> 00:22:43,970  
show up on the day will mention this

496  
00:22:41,329 --> 00:22:46,220  
went with the first recorded ESP ever in

497  
00:22:43,970 --> 00:22:49,009  
history Geraldine 12 months before it

498  
00:22:46,220 --> 00:22:52,579  
give me a phone number and I had worked

499  
00:22:49,009 --> 00:22:54,259

in public service i fathered one day my

500

00:22:52,579 --> 00:22:56,689

phone was out a week and I'd tell gel

501

00:22:54,259 --> 00:22:57,888

deny was going to drop in that day so I

502

00:22:56,690 --> 00:22:59,630

think the conversation went something

503

00:22:57,888 --> 00:23:02,959

like that and I had these to show her

504

00:22:59,630 --> 00:23:05,720

and I said ring ring hello Geraldine

505

00:23:02,960 --> 00:23:07,639

it's Loretta what are you ringing me as

506

00:23:05,720 --> 00:23:09,500

he hears something noon you got me

507

00:23:07,638 --> 00:23:11,209

ringing meet the farming year I said no

508

00:23:09,500 --> 00:23:16,210

I'm we were no offense Martin I said

509

00:23:11,210 --> 00:23:16,210

Gerald E she said why hearing me I said

510

00:23:20,200 --> 00:23:26,750

sure this is I said to tell you I can't

511

00:23:23,778 --> 00:23:29,599

make it to where I'm at the University

512

00:23:26,750 --> 00:23:32,450

and I said why are you ringing media she

513

00:23:29,599 --> 00:23:34,339

said Britain extra what you on and she

514  
00:23:32,450 --> 00:23:36,409  
said what to do it I said I would walk

515  
00:23:34,339 --> 00:23:38,689  
on broken glass to do that presentation

516  
00:23:36,409 --> 00:23:42,740  
and she said well that sounds okay all

517  
00:23:38,690 --> 00:23:45,288  
right anyway so I managed in this next

518  
00:23:42,740 --> 00:23:47,419  
few days to delay them so I could look

519  
00:23:45,288 --> 00:23:50,629  
like I knew what I was doing I'm Irish

520  
00:23:47,419 --> 00:23:54,288  
run I had the jar I had the jellybeans

521  
00:23:50,630 --> 00:23:57,260  
and alone and Australian jellybean

522  
00:23:54,288 --> 00:23:59,329  
handle a and there's the real one

523  
00:23:57,259 --> 00:24:01,278  
there's a jellybean one I hide them and

524  
00:23:59,329 --> 00:24:03,199  
I do demos and for some reason everybody

525  
00:24:01,278 --> 00:24:06,200  
has always picked the jelly bean I'm

526  
00:24:03,200 --> 00:24:07,788  
delay in my surgeon thing that one I saw

527  
00:24:06,200 --> 00:24:11,330  
the needle flickr that one and I don't

528  
00:24:07,788 --> 00:24:13,158  
know I oh sorry and the and they

529  
00:24:11,329 --> 00:24:15,250  
actually better because if stood out

530  
00:24:13,159 --> 00:24:18,040  
what you can eat them huh

531  
00:24:15,250 --> 00:24:19,630  
and they have no side effects so that as

532  
00:24:18,039 --> 00:24:21,069  
I say was an emergency rest of my

533  
00:24:19,630 --> 00:24:25,330  
girlfriend's hair so she could throw up

534  
00:24:21,069 --> 00:24:26,980  
these for the presentation later on not

535  
00:24:25,329 --> 00:24:29,250  
too much later on i'll be showing the

536  
00:24:26,980 --> 00:24:33,309  
video and we can go through that widget

537  
00:24:29,250 --> 00:24:35,529  
we've got time for that yes now dr. Lisa

538  
00:24:33,309 --> 00:24:37,299  
laakso is over here she features she's

539  
00:24:35,529 --> 00:24:38,980  
the good-looking one in the video and

540  
00:24:37,299 --> 00:24:54,730  
this is the nose we'll be looking up in

541  
00:24:38,980 --> 00:24:57,670  
a minute so here yes no volume family is

542

00:24:54,730 --> 00:24:58,990  
magnetic therapy Lisa honey balls be

543  
00:24:57,670 --> 00:25:01,320  
looking at the products that are

544  
00:24:58,990 --> 00:25:03,519  
available and whether they do work

545  
00:25:01,319 --> 00:25:05,589  
magnetic therapy there are the young

546  
00:25:03,519 --> 00:25:07,389  
delays I said when you're receiving the

547  
00:25:05,589 --> 00:25:10,149  
benefits every single night the spa

548  
00:25:07,390 --> 00:25:12,040  
treatments the isolating particular

549  
00:25:10,150 --> 00:25:14,980  
point very whether it's a neat wrist

550  
00:25:12,039 --> 00:25:18,069  
elbow ankle the faithful you to feel so

551  
00:25:14,980 --> 00:25:20,769  
much better haiyan go and the nuggets

552  
00:25:18,069 --> 00:25:22,240  
people are not being told the truth for

553  
00:25:20,769 --> 00:25:25,240  
years there's been a hard sell on

554  
00:25:22,240 --> 00:25:27,309  
magnets to treat pain crane Trinder says

555  
00:25:25,240 --> 00:25:29,799  
he brought the therapy to Australia a

556  
00:25:27,309 --> 00:25:33,009

formal own of ivory so he says he broke

557

00:25:29,799 --> 00:25:35,710

30 bones and her back and speak ears on

558

00:25:33,009 --> 00:25:38,049

drugs before trying magnets in the US

559

00:25:35,710 --> 00:25:40,319

not three days and I was the difference

560

00:25:38,049 --> 00:25:43,299

in the pain relief and then after about

561

00:25:40,319 --> 00:25:46,659

15 days Toby Hall is just incredible

562

00:25:43,299 --> 00:25:48,460

Frances he sold 300,000 products in

563

00:25:46,660 --> 00:25:50,950

starting gold coast-based company

564

00:25:48,460 --> 00:25:53,100

biomagnetic and he happily presents

565

00:25:50,950 --> 00:25:56,500

customers who saved that would be works

566

00:25:53,099 --> 00:25:59,049

carpal tunnel and it kept me away from

567

00:25:56,500 --> 00:26:01,690

not prevented me from using my hands and

568

00:25:59,049 --> 00:26:02,470

within two weeks I was feeling right

569

00:26:01,690 --> 00:26:04,630

from a knife

570

00:26:02,470 --> 00:26:08,529

move in six weeks I was able to get up

571  
00:26:04,630 --> 00:26:11,919  
up up out of bed and move around I was a

572  
00:26:08,529 --> 00:26:14,490  
16 year old go fix don't fire or lose

573  
00:26:11,919 --> 00:26:17,470  
any fertile statements are not evidence

574  
00:26:14,490 --> 00:26:20,109  
the red American calls herself the jelly

575  
00:26:17,470 --> 00:26:24,750  
bean lately she's on a campaign to prove

576  
00:26:20,109 --> 00:26:24,750  
many alternative therapies simply some

577  
00:26:24,960 --> 00:26:30,909  
many mothers with small children who

578  
00:26:28,900 --> 00:26:33,490  
have boxful bruises you give them a

579  
00:26:30,909 --> 00:26:35,470  
jelly bean they're instantly chilled and

580  
00:26:33,490 --> 00:26:37,690  
that's just a placebo of it and the

581  
00:26:35,470 --> 00:26:40,150  
placebo effect is what Loretta believes

582  
00:26:37,690 --> 00:26:42,850  
is at play when people find magnetic

583  
00:26:40,150 --> 00:26:45,100  
therapy working she says many consumers

584  
00:26:42,849 --> 00:26:47,168  
get no benefit but you don't hear them

585  
00:26:45,099 --> 00:26:49,298  
number of people that I know that are

586  
00:26:47,169 --> 00:26:51,250  
bought some of these magnetic products

587  
00:26:49,298 --> 00:26:54,250  
they have put them in their cupboards

588  
00:26:51,250 --> 00:26:56,490  
and put them on a braided my Loretta so

589  
00:26:54,250 --> 00:26:59,048  
passionate well she had breast cancer

590  
00:26:56,490 --> 00:27:01,359  
prompting her to investigate treatments

591  
00:26:59,048 --> 00:27:03,700  
for chronic illnesses she has a maths

592  
00:27:01,359 --> 00:27:05,979  
and physics degree so she looks for

593  
00:27:03,700 --> 00:27:08,798  
evidence which she says is severely

594  
00:27:05,980 --> 00:27:11,140  
lacking when it comes to magnets the

595  
00:27:08,798 --> 00:27:13,569  
people I represent the cancer patients

596  
00:27:11,140 --> 00:27:17,230  
and seniors and they really don't have

597  
00:27:13,569 --> 00:27:19,149  
the money to be buying recibo product so

598  
00:27:17,230 --> 00:27:21,669  
where does all this leave the people in

599

00:27:19,150 --> 00:27:23,740  
the middle consumers salespeople one

600  
00:27:21,669 --> 00:27:26,020  
science sceptics of the other can be

601  
00:27:23,740 --> 00:27:28,538  
tough making an informed decision well

602  
00:27:26,019 --> 00:27:31,000  
science is trying to give us conclusive

603  
00:27:28,538 --> 00:27:33,519  
answers well we've always be a lot of

604  
00:27:31,000 --> 00:27:35,650  
investment in my own money in it it will

605  
00:27:33,519 --> 00:27:38,019  
do seem to suggest that it helps them so

606  
00:27:35,650 --> 00:27:39,788  
we need to find out whether in Baptism

607  
00:27:38,019 --> 00:27:42,429  
and how it does it in a griffith

608  
00:27:39,788 --> 00:27:44,650  
university studies strong flux magnets

609  
00:27:42,429 --> 00:27:46,950  
are being placed directly on the skin of

610  
00:27:44,650 --> 00:27:49,509  
people with tennis elbow pain

611  
00:27:46,950 --> 00:27:52,090  
indications are the perhaps there wasn't

612  
00:27:49,509 --> 00:27:53,980  
a bit perhaps that effect is not a nerve

613  
00:27:52,089 --> 00:27:55,808

based response perhaps there's something

614

00:27:53,980 --> 00:27:59,640

else that's happening and that's what we

615

00:27:55,808 --> 00:28:01,319

have to go on to test so far only a hand

616

00:27:59,640 --> 00:28:03,960

what patients have been studied and

617

00:28:01,319 --> 00:28:06,659

researchers admit measuring pain levels

618

00:28:03,960 --> 00:28:08,519

scientifically is proving tough pretty

619

00:28:06,660 --> 00:28:10,050

frustrating because I'm not sure at this

620

00:28:08,519 --> 00:28:12,660

point in time that we have a technology

621

00:28:10,049 --> 00:28:14,879

actually your wife xserve are actually

622

00:28:12,660 --> 00:28:17,070

occurring as they persevere the

623

00:28:14,880 --> 00:28:19,050

Australian consumers association says

624

00:28:17,069 --> 00:28:22,049

it's found no conclusive scientific

625

00:28:19,049 --> 00:28:24,450

evidence to support magnets but nothing

626

00:28:22,049 --> 00:28:27,029

either to say they're harmful except

627

00:28:24,450 --> 00:28:28,830

maybe to the hip pocket these underlays

628  
00:28:27,029 --> 00:28:31,529  
sell for two hundred and ninety-nine

629  
00:28:28,829 --> 00:28:33,449  
dollars for a queen made Craig started

630  
00:28:31,529 --> 00:28:36,000  
out offering money back guarantees but

631  
00:28:33,450 --> 00:28:37,950  
doesn't now though studies on I can

632  
00:28:36,000 --> 00:28:40,529  
comment on it the Consumers Association

633  
00:28:37,950 --> 00:28:42,630  
advises people try and magnetic therapy

634  
00:28:40,529 --> 00:28:45,329  
to look for products with money back

635  
00:28:42,630 --> 00:28:47,910  
guarantees and the jelly bean lady well

636  
00:28:45,329 --> 00:28:49,829  
she has her own suggestion I think if

637  
00:28:47,910 --> 00:28:51,600  
you want to try them it may medic

638  
00:28:49,829 --> 00:28:54,829  
therapy home just grab a fridge magnet

639  
00:28:51,599 --> 00:28:54,829  
and put it on the spot

640  
00:29:09,219 --> 00:29:13,849  
examining the truth in exposing the

641  
00:29:11,358 --> 00:29:15,708  
frauds but psychics co uk is the website

642  
00:29:13,848 --> 00:29:17,808  
that critically examines mediums

643  
00:29:15,709 --> 00:29:19,639  
clairvoyants and psychics follow the

644  
00:29:17,808 --> 00:29:21,709  
controversies news and discussions in

645  
00:29:19,638 --> 00:29:23,238  
the lively forum community and now you

646  
00:29:21,709 --> 00:29:24,919  
can download your weekly fix of

647  
00:29:23,239 --> 00:29:27,288  
righteous indignation the official

648  
00:29:24,919 --> 00:29:28,549  
podcast of bad psychics khodet UK that

649  
00:29:27,288 --> 00:29:31,669  
talks hard and critically about

650  
00:29:28,548 --> 00:29:33,038  
paranormal bad psychics khodet UK the

651  
00:29:31,669 --> 00:29:44,629  
UK's largest and most respected

652  
00:29:33,038 --> 00:29:46,368  
skeptical site looking at psychics it's

653  
00:29:44,628 --> 00:29:48,858  
a Richard Saunders here with dr. Rachel

654  
00:29:46,368 --> 00:29:51,458  
Dunlop we're walking down King Street in

655  
00:29:48,858 --> 00:29:54,168  
Newtown Newtown the suburb in Sydney and

656

00:29:51,459 --> 00:29:57,739  
Rachel do we actually ever relax from

657  
00:29:54,169 --> 00:30:00,139  
this no because we had although can I

658  
00:29:57,739 --> 00:30:01,519  
just say we just saw a really been roll

659  
00:30:00,138 --> 00:30:03,828  
down the street though which was quite

660  
00:30:01,519 --> 00:30:05,598  
amusing it was in the middle of the road

661  
00:30:03,828 --> 00:30:07,158  
and it's a main road we're stuck behind

662  
00:30:05,598 --> 00:30:09,108  
the truck and the truck drove off in the

663  
00:30:07,159 --> 00:30:10,450  
bin quality yes very sweet it went

664  
00:30:09,108 --> 00:30:13,968  
through the intersection and everything

665  
00:30:10,450 --> 00:30:16,069  
perfect so we just had a nice lunch and

666  
00:30:13,969 --> 00:30:18,288  
a chat and then we decided to check out

667  
00:30:16,069 --> 00:30:21,019  
some pharmacies we did we'd and we had a

668  
00:30:18,288 --> 00:30:23,239  
bit of a win and a massive fail yes we

669  
00:30:21,019 --> 00:30:25,819  
did well we had a win Richard because we

670  
00:30:23,239 --> 00:30:28,308

went into a big pharmacy and it stopped

671

00:30:25,819 --> 00:30:31,548

from floor to ceiling with supplements

672

00:30:28,308 --> 00:30:32,868

and way powders and all kinds of stuff

673

00:30:31,548 --> 00:30:33,980

that from which there's not much

674

00:30:32,868 --> 00:30:36,048

evidence but at least

675

00:30:33,980 --> 00:30:38,058

there's stuff in it you know unlike

676

00:30:36,048 --> 00:30:40,009

homeopathy and we asked if they had

677

00:30:38,058 --> 00:30:41,960

homeopathy and she looked at us

678

00:30:40,009 --> 00:30:43,789

physically and said no we don't have it

679

00:30:41,960 --> 00:30:46,789

and we looked at each other and thought

680

00:30:43,789 --> 00:30:48,829

what yeah and she said which product do

681

00:30:46,789 --> 00:30:52,190

you want and we we were a bit shocked we

682

00:30:48,829 --> 00:30:54,439

just said we don't I didn't really know

683

00:30:52,190 --> 00:30:56,630

what to say because I've never had

684

00:30:54,440 --> 00:30:59,929

someone in a pharmacy tell me they don't

685  
00:30:56,630 --> 00:31:01,850  
have homeopathy so we was thought oh

686  
00:30:59,929 --> 00:31:04,370  
that's all right and we said well that's

687  
00:31:01,849 --> 00:31:06,019  
good we're glad you don't we went around

688  
00:31:04,369 --> 00:31:08,649  
out of the street walked a couple

689  
00:31:06,019 --> 00:31:10,509  
hundred meters

690  
00:31:08,650 --> 00:31:13,680  
as the cars go by we're just stuck into

691  
00:31:10,509 --> 00:31:17,319  
the street here it might be better oh

692  
00:31:13,680 --> 00:31:21,340  
this is the street where you work that's

693  
00:31:17,319 --> 00:31:23,919  
better and so we walk down to another

694  
00:31:21,339 --> 00:31:25,539  
pharmacy hmm and because you wanted to

695  
00:31:23,920 --> 00:31:28,210  
check out what it said on the packet

696  
00:31:25,539 --> 00:31:29,920  
packets of homeopathy yeah because we

697  
00:31:28,210 --> 00:31:32,410  
had an email from a listener who said

698  
00:31:29,920 --> 00:31:34,690  
that it says on the side of the boxes

699  
00:31:32,410 --> 00:31:37,360  
active ingredient and then at least as

700  
00:31:34,690 --> 00:31:40,539  
lists the ingredients but with their

701  
00:31:37,359 --> 00:31:43,809  
dilutions so essentially that should say

702  
00:31:40,539 --> 00:31:47,829  
active ingredients none yeah so we just

703  
00:31:43,809 --> 00:31:49,569  
wanted to confirm this so that's right

704  
00:31:47,829 --> 00:31:51,369  
we walked in or just studying the boxes

705  
00:31:49,569 --> 00:31:52,779  
and the friendly assistant from the

706  
00:31:51,369 --> 00:31:58,209  
front desk came up and said can I help

707  
00:31:52,779 --> 00:31:59,680  
you etc etc and then you said we noticed

708  
00:31:58,210 --> 00:32:03,220  
there's homeopathy their four children

709  
00:31:59,680 --> 00:32:06,460  
pain and fever and this sort of thing so

710  
00:32:03,220 --> 00:32:08,470  
we acquired you said to her does this

711  
00:32:06,460 --> 00:32:10,779  
work do you think of work she said oh

712  
00:32:08,470 --> 00:32:13,269  
yes it works because our customers keep

713

00:32:10,779 --> 00:32:14,680  
coming back and telling us it works so

714  
00:32:13,269 --> 00:32:17,769  
we thought up

715  
00:32:14,680 --> 00:32:19,420  
it's a bit of a fail then I tried to

716  
00:32:17,769 --> 00:32:23,019  
explain to her that that's just anecdote

717  
00:32:19,420 --> 00:32:25,269  
and she and you said you know what

718  
00:32:23,019 --> 00:32:27,639  
homeopathy is and her answer was I guess

719  
00:32:25,269 --> 00:32:29,139  
it's all natural and herbs yeah and then

720  
00:32:27,640 --> 00:32:31,060  
she pointed to the side of the box where

721  
00:32:29,140 --> 00:32:34,330  
it said active ingredients and she said

722  
00:32:31,059 --> 00:32:38,049  
look it says and it said arnica 30 see

723  
00:32:34,329 --> 00:32:40,599  
this was arnica and not baby stopped and

724  
00:32:38,049 --> 00:32:43,500  
I said yeah that means it's diluted 10

725  
00:32:40,599 --> 00:32:45,629  
to the negative 30 times

726  
00:32:43,500 --> 00:32:47,579  
and she said I'd still there still there

727  
00:32:45,630 --> 00:32:49,260

at work they tell me it works they tell

728

00:32:47,579 --> 00:32:51,179

me yeah yeah she hadn't got a clue what

729

00:32:49,259 --> 00:32:53,759

we were talking about and then I said

730

00:32:51,180 --> 00:32:56,759

but you know that people report that the

731

00:32:53,759 --> 00:32:58,680

placebo works too missioner o response

732

00:32:56,759 --> 00:33:00,990

was just priceless this is a woman

733

00:32:58,680 --> 00:33:03,630

working in a pharmacy selling medicine

734

00:33:00,990 --> 00:33:07,680

she said oh I don't know what a placebo

735

00:33:03,630 --> 00:33:09,930

is that's above my head yeah fail yeah

736

00:33:07,680 --> 00:33:12,000

you don't even know what the placebo

737

00:33:09,930 --> 00:33:13,680

effect is yeah and when I suggested that

738

00:33:12,000 --> 00:33:15,750

it might be dangerous to give my child

739

00:33:13,680 --> 00:33:18,509

something that has nothing in it instead

740

00:33:15,750 --> 00:33:20,519

of perhaps paracetamol or coding she

741

00:33:18,509 --> 00:33:23,879

said oh no no they say it works they say

742  
00:33:20,519 --> 00:33:25,829  
it works yeah so so pharmacies of New

743  
00:33:23,880 --> 00:33:28,290  
South Wales what are you doing so and

744  
00:33:25,829 --> 00:33:30,799  
and I just wanted to point out that when

745  
00:33:28,289 --> 00:33:33,029  
I worked in a restaurant as a waitress I

746  
00:33:30,799 --> 00:33:34,859  
had to know everything that was in the

747  
00:33:33,029 --> 00:33:36,629  
food that I was serving two people I had

748  
00:33:34,859 --> 00:33:38,279  
to know whether there was nuts in it

749  
00:33:36,630 --> 00:33:41,040  
whether there was gluten in it where

750  
00:33:38,279 --> 00:33:44,700  
there was weight in it even just where

751  
00:33:41,039 --> 00:33:46,319  
the particular ingredients came from so

752  
00:33:44,700 --> 00:33:48,690  
that I could give people an informed

753  
00:33:46,319 --> 00:33:51,299  
choice when they chose a dish to put in

754  
00:33:48,690 --> 00:33:52,750  
there now yeah yeah and she and this

755  
00:33:51,299 --> 00:33:55,450  
woman is still a

756  
00:33:52,750 --> 00:33:58,390  
this water to people with children with

757  
00:33:55,450 --> 00:33:59,920  
fever fever yeah and saying I don't know

758  
00:33:58,390 --> 00:34:02,800  
what a placebo is I don't know what you

759  
00:33:59,920 --> 00:34:05,050  
know it works inexcusable so another

760  
00:34:02,799 --> 00:34:07,299  
tack we seriously have to consider now

761  
00:34:05,049 --> 00:34:09,639  
is simple consumer affairs these

762  
00:34:07,299 --> 00:34:12,398  
products claim state quite clearly on

763  
00:34:09,639 --> 00:34:14,590  
the package contains and they don't they

764  
00:34:12,398 --> 00:34:16,179  
don't then I can't sell something which

765  
00:34:14,590 --> 00:34:17,980  
doesn't contain something what Viking

766  
00:34:16,179 --> 00:34:19,628  
these hold me off of this get away with

767  
00:34:17,980 --> 00:34:21,460  
it no I couldn't work in a restaurant

768  
00:34:19,628 --> 00:34:24,279  
and say i'll sell you a dozen oysters

769  
00:34:21,460 --> 00:34:25,809  
and then just take out the shells thank

770

00:34:24,280 --> 00:34:28,269  
you dr. Richie another interesting

771  
00:34:25,809 --> 00:34:31,059  
adventure you're listening to the

772  
00:34:28,269 --> 00:34:33,878  
skeptical zone I'm Brian Dunning from

773  
00:34:31,059 --> 00:34:36,549  
sceptile calm when I'm not tuned into

774  
00:34:33,878 --> 00:34:39,339  
the skeptic zone I'm recording thus kept

775  
00:34:36,550 --> 00:34:41,230  
I'd podcast doing what I can to further

776  
00:34:39,340 --> 00:34:43,780  
knowledge by blasting away the

777  
00:34:41,230 --> 00:34:46,599  
widespread pseudo-sciences that infect

778  
00:34:43,780 --> 00:34:49,210  
popular culture I've also compiled a

779  
00:34:46,599 --> 00:34:52,299  
40-minute educational video on critical

780  
00:34:49,210 --> 00:34:56,050  
thinking called here be dragons at here

781  
00:34:52,300 --> 00:34:58,690  
be dragons movie.com I hope you check

782  
00:34:56,050 --> 00:35:05,019  
those out and I hope you enjoy the

783  
00:34:58,690 --> 00:35:09,929  
skeptical zone now it's time for dr.

784  
00:35:05,019 --> 00:35:09,929

Richie reports with dr. Rachel Dunlop

785

00:35:10,690 --> 00:35:16,039

hello everyone and welcome to dr. Reggie

786

00:35:13,309 --> 00:35:17,989

reports regular listeners would recall

787

00:35:16,039 --> 00:35:19,759

that I recently attended a conference on

788

00:35:17,989 --> 00:35:23,329

the Gold Coast called the International

789

00:35:19,760 --> 00:35:25,580

proteolysis society here I spoke to

790

00:35:23,329 --> 00:35:28,610

several scientists one of whom I present

791

00:35:25,579 --> 00:35:30,590

this week dr. Sheena McGowan is a

792

00:35:28,610 --> 00:35:33,559

structural biologist from Monash

793

00:35:30,590 --> 00:35:35,780

University in Melbourne Sheena's primary

794

00:35:33,559 --> 00:35:37,880

area of research is malaria and in

795

00:35:35,780 --> 00:35:41,119

particular designing new drugs to combat

796

00:35:37,880 --> 00:35:43,160

the parasite malaria is a health crisis

797

00:35:41,119 --> 00:35:45,619

in the developing world with statistics

798

00:35:43,159 --> 00:35:48,589

showing that one child dies every 20

799  
00:35:45,619 --> 00:35:52,400  
seconds from malaria and 500 million new

800  
00:35:48,590 --> 00:35:54,950  
cases occur every year Sheena also tells

801  
00:35:52,400 --> 00:35:56,240  
us about a new vaccine for malaria which

802  
00:35:54,949 --> 00:36:00,169  
is scheduled to be rolled out across

803  
00:35:56,239 --> 00:36:02,659  
Africa in 2010 something else for the

804  
00:36:00,170 --> 00:36:04,670  
anti-vaxxers to complain about as you'll

805  
00:36:02,659 --> 00:36:06,859  
hear in this interview Sheena and her

806  
00:36:04,670 --> 00:36:09,680  
team are using a unique and elegant way

807  
00:36:06,860 --> 00:36:12,260  
of targeting the parasite with new drugs

808  
00:36:09,679 --> 00:36:14,089  
and i'm here today with sheena McGowan

809  
00:36:12,260 --> 00:36:17,260  
hi Sheena how are you good thank you

810  
00:36:14,090 --> 00:36:20,510  
welcome to the skeptic zone we're in a

811  
00:36:17,260 --> 00:36:22,609  
rather tropical setting today are we for

812  
00:36:20,510 --> 00:36:24,859  
the international proteolysis conference

813  
00:36:22,608 --> 00:36:26,960  
gorgeous City to be open this year and

814  
00:36:24,858 --> 00:36:29,358  
apparently the pool here is quite famous

815  
00:36:26,960 --> 00:36:30,679  
but I haven't been down there yet you're

816  
00:36:29,358 --> 00:36:32,420  
going for a swim laughter this happiness

817  
00:36:30,679 --> 00:36:34,309  
yeah that's her I intend to go to you

818  
00:36:32,420 --> 00:36:36,349  
apparently I have a living right foot in

819  
00:36:34,309 --> 00:36:38,960  
their pool so yeah and you can swim and

820  
00:36:36,349 --> 00:36:41,239  
look at the fish yeah well let's talk

821  
00:36:38,960 --> 00:36:43,010  
science for a moment before that you're

822  
00:36:41,239 --> 00:36:44,659  
a structural biologist can you just

823  
00:36:43,010 --> 00:36:46,730  
explain to our listeners a little bit in

824  
00:36:44,659 --> 00:36:49,089  
brief what is a structural biologist a

825  
00:36:46,730 --> 00:36:51,409  
structural biologist looks at proteins

826  
00:36:49,090 --> 00:36:53,780  
protein structure so proteins are

827

00:36:51,409 --> 00:36:56,118  
enzymes and basically all the working

828  
00:36:53,780 --> 00:36:57,670  
functions of the body and so what we do

829  
00:36:56,119 --> 00:37:01,269  
is actually determine the true

830  
00:36:57,670 --> 00:37:03,338  
structure and shape of proteins and from

831  
00:37:01,269 --> 00:37:06,039  
that what we do is infer how they work

832  
00:37:03,338 --> 00:37:07,989  
what function they do and for me

833  
00:37:06,039 --> 00:37:10,298  
personally I go on then to design drugs

834  
00:37:07,989 --> 00:37:11,739  
that may stop them from functioning now

835  
00:37:10,298 --> 00:37:14,079  
you go to be very interesting to optus

836  
00:37:11,739 --> 00:37:15,879  
earlier today about malaria you're

837  
00:37:14,079 --> 00:37:19,059  
looking in particular at designing

838  
00:37:15,880 --> 00:37:20,410  
drives yet reacts yell area can you just

839  
00:37:19,059 --> 00:37:23,019  
give Alice is a little bit of background

840  
00:37:20,409 --> 00:37:25,000  
about the problem like Maria malaria

841  
00:37:23,019 --> 00:37:26,559

remains a global health issue in

842

00:37:25,000 --> 00:37:28,869

Australia we're very lucky at the moment

843

00:37:26,559 --> 00:37:30,849

we don't have malaria but malaria

844

00:37:28,869 --> 00:37:33,579

actually does remain a global health

845

00:37:30,849 --> 00:37:35,769

crisis so this statistics actually run

846

00:37:33,579 --> 00:37:37,180

that there's one child dies every 20

847

00:37:35,769 --> 00:37:39,670

seconds from malaria somewhere in the

848

00:37:37,179 --> 00:37:41,858

world but there's 500 million cases

849

00:37:39,670 --> 00:37:44,380

every year and from that two million

850

00:37:41,858 --> 00:37:46,000

people will die from malaria what I find

851

00:37:44,380 --> 00:37:48,130

more frightening is it half the world's

852

00:37:46,000 --> 00:37:50,409

population live at risk of contracting

853

00:37:48,130 --> 00:37:52,690

the disease and so that they're just

854

00:37:50,409 --> 00:37:55,509

huge statistics and then their mortality

855

00:37:52,690 --> 00:37:58,000

statistics it exists and mostly they're

856  
00:37:55,510 --> 00:37:59,500  
in developing nations but you've got to

857  
00:37:58,000 --> 00:38:01,869  
factor in as well but in developing

858  
00:37:59,500 --> 00:38:04,989  
nations malaria someone has malaria and

859  
00:38:01,869 --> 00:38:06,910  
they also unluckily have HIV or TB they

860  
00:38:04,989 --> 00:38:08,558  
get even sicker so they have a

861  
00:38:06,909 --> 00:38:11,019  
synergistic effect between the two

862  
00:38:08,559 --> 00:38:13,089  
diseases and so you have these huge

863  
00:38:11,019 --> 00:38:15,608  
health issues for countries that really

864  
00:38:13,088 --> 00:38:17,440  
can't afford to deal with them and then

865  
00:38:15,608 --> 00:38:20,048  
also these countries have economic

866  
00:38:17,440 --> 00:38:21,818  
there's an economic cost to malaria

867  
00:38:20,048 --> 00:38:23,380  
because their population is sick and

868  
00:38:21,818 --> 00:38:24,759  
they're not going to work and so if

869  
00:38:23,380 --> 00:38:26,920  
there's statistics at the moment say

870  
00:38:24,760 --> 00:38:28,750  
that any country that has a high disease

871  
00:38:26,920 --> 00:38:30,460  
rate of malaria will actually lose

872  
00:38:28,750 --> 00:38:31,838  
one-point-three percent of their

873  
00:38:30,460 --> 00:38:34,019  
economic growth simply because of

874  
00:38:31,838 --> 00:38:36,090  
malaria and for a developing country

875  
00:38:34,019 --> 00:38:37,980  
one-point-three percent

876  
00:38:36,090 --> 00:38:40,559  
huge amount for economic growth so

877  
00:38:37,980 --> 00:38:41,789  
controlling malaria although we think it

878  
00:38:40,559 --> 00:38:43,409  
might be something that you know used to

879  
00:38:41,789 --> 00:38:44,969  
exist and we have drugs for it and if

880  
00:38:43,409 --> 00:38:47,369  
you go to Thailand you take drugs for it

881  
00:38:44,969 --> 00:38:49,169  
it's still a major major problem within

882  
00:38:47,369 --> 00:38:51,000  
the country in the world so so you

883  
00:38:49,170 --> 00:38:53,519  
mentioned the drugs what is the current

884

00:38:51,000 --> 00:38:55,440  
therapies and you also alluded to the

885  
00:38:53,519 --> 00:38:57,179  
rollout of a malaria vaccine there next

886  
00:38:55,440 --> 00:38:59,130  
year and you tell us your sighting I

887  
00:38:57,179 --> 00:39:01,049  
can't give you the exit exact items are

888  
00:38:59,130 --> 00:39:03,360  
don't remember deze there is a brand new

889  
00:39:01,050 --> 00:39:06,180  
malaria vaccine it's going to rolled out

890  
00:39:03,360 --> 00:39:07,680  
in Africa at this stage they believe it

891  
00:39:06,179 --> 00:39:09,690  
will be thirty percent I believe the

892  
00:39:07,679 --> 00:39:11,549  
numbers of thirty percent effective the

893  
00:39:09,690 --> 00:39:12,750  
problem with malaria is with drugs or

894  
00:39:11,550 --> 00:39:15,000  
vaccines and they do believe this

895  
00:39:12,750 --> 00:39:16,710  
vaccine we rejected is it the parasites

896  
00:39:15,000 --> 00:39:18,630  
are really claiming they work out a way

897  
00:39:16,710 --> 00:39:20,099  
to get around all her drugs and so they

898  
00:39:18,630 --> 00:39:22,349

think the vaccine might last 18 months

899

00:39:20,099 --> 00:39:24,360

so although it sounds wonderful that

900

00:39:22,349 --> 00:39:25,799

there's a vaccine for most of us who do

901

00:39:24,360 --> 00:39:27,059

the research we realize we're still

902

00:39:25,800 --> 00:39:30,360

going to have to keep coming with new

903

00:39:27,059 --> 00:39:32,400

drugs malaria treatment is a combination

904

00:39:30,360 --> 00:39:34,200

therapy generally depending on where

905

00:39:32,400 --> 00:39:37,139

you've got the malaria located in the

906

00:39:34,199 --> 00:39:39,089

world just how you get treated we had

907

00:39:37,139 --> 00:39:41,309

one drug that used to be the you know

908

00:39:39,090 --> 00:39:42,570

the end drug that if you couldn't treat

909

00:39:41,309 --> 00:39:44,789

with anybody else used to go in with

910

00:39:42,570 --> 00:39:46,230

that one I think three months ago they

911

00:39:44,789 --> 00:39:49,230

reported the first resistance to that

912

00:39:46,230 --> 00:39:51,300

drug so the problem with malaria is that

913  
00:39:49,230 --> 00:39:54,929  
it can be treated and it can be cured

914  
00:39:51,300 --> 00:39:56,460  
for usually you just need constant new

915  
00:39:54,929 --> 00:39:58,019  
drugs because the parasite just keeps

916  
00:39:56,460 --> 00:40:00,119  
evolving resistance to everything that

917  
00:39:58,019 --> 00:40:00,980  
we throw at it and because so many

918  
00:40:00,119 --> 00:40:02,750  
people

919  
00:40:00,980 --> 00:40:05,210  
there's a lot of drugs floating around

920  
00:40:02,750 --> 00:40:07,639  
all through the system all the time so

921  
00:40:05,210 --> 00:40:09,500  
we just need basically like weaponry we

922  
00:40:07,639 --> 00:40:11,629  
need different treatment options to

923  
00:40:09,500 --> 00:40:12,858  
combat it and unfortunately for

924  
00:40:11,630 --> 00:40:14,420  
developing nations they need to be very

925  
00:40:12,858 --> 00:40:16,190  
cheap and they need to be very effective

926  
00:40:14,420 --> 00:40:17,930  
there's no point building a drug that's

927  
00:40:16,190 --> 00:40:19,099  
going to be really really costly because

928  
00:40:17,929 --> 00:40:21,230  
the country is can't afford to buy it

929  
00:40:19,099 --> 00:40:22,670  
yeah it's fine for turrets you know it's

930  
00:40:21,230 --> 00:40:24,559  
fine for us if we want to go to time we

931  
00:40:22,670 --> 00:40:25,940  
can afford to buy it but in Africa or

932  
00:40:24,559 --> 00:40:27,739  
South East Asia where these problems are

933  
00:40:25,940 --> 00:40:29,750  
endemic it needs to be really really

934  
00:40:27,739 --> 00:40:32,539  
cheap and really effective you mentioned

935  
00:40:29,750 --> 00:40:33,858  
that the parasite is very clever and so

936  
00:40:32,539 --> 00:40:36,469  
for that reason you're focusing on a

937  
00:40:33,858 --> 00:40:38,900  
very specific part of its life cycle we

938  
00:40:36,469 --> 00:40:40,879  
are you're looking at it's some some

939  
00:40:38,900 --> 00:40:42,950  
food supply and you're targeting an

940  
00:40:40,880 --> 00:40:44,809  
enzyme that allows it to break down

941

00:40:42,949 --> 00:40:46,879  
blood you can you tell us a little bit

942  
00:40:44,809 --> 00:40:49,250  
about that yeah for sure so the idea on

943  
00:40:46,880 --> 00:40:50,539  
new drugs and this is what everyone

944  
00:40:49,250 --> 00:40:51,920  
around the world is focusing on the same

945  
00:40:50,539 --> 00:40:53,809  
thing we don't want to just another

946  
00:40:51,920 --> 00:40:55,130  
generation of the same thing that you

947  
00:40:53,809 --> 00:40:57,289  
might have a different chemical added to

948  
00:40:55,130 --> 00:40:59,390  
it that the malaria the parasites will

949  
00:40:57,289 --> 00:41:00,769  
develop resistance it quite fast what

950  
00:40:59,389 --> 00:41:03,589  
we're looking at now is a whole new

951  
00:41:00,769 --> 00:41:05,509  
target and the idea base basically being

952  
00:41:03,590 --> 00:41:07,160  
as if we can stop the parasite from

953  
00:41:05,510 --> 00:41:09,200  
eating and that's what it uses is

954  
00:41:07,159 --> 00:41:12,079  
hemoglobin to basically eat and that's

955  
00:41:09,199 --> 00:41:13,939

its food source will start to death it's

956

00:41:12,079 --> 00:41:15,920

a very simple concept so these two

957

00:41:13,940 --> 00:41:18,829

enzymes that we focus on are the very

958

00:41:15,920 --> 00:41:20,900

final stages of its food cycle as such

959

00:41:18,829 --> 00:41:22,789

it breaks down hemoglobin which is found

960

00:41:20,900 --> 00:41:24,829

in red blood cells through very

961

00:41:22,789 --> 00:41:26,420

complicated process but at the very end

962

00:41:24,829 --> 00:41:28,099

it becomes a very simple process and

963

00:41:26,420 --> 00:41:29,990

there's one step that they have to

964

00:41:28,099 --> 00:41:32,089

complete to get what they need at the

965

00:41:29,989 --> 00:41:33,858

end of it and our two enzymes that we're

966

00:41:32,090 --> 00:41:35,690

targeting our that very final step and

967

00:41:33,858 --> 00:41:38,329

our theory is that if we can just stop

968

00:41:35,690 --> 00:41:39,320

the final step then they're they're a

969

00:41:38,329 --> 00:41:40,789

bit stuck they won't be able to get

970  
00:41:39,320 --> 00:41:42,680  
their free amino acids they can't build

971  
00:41:40,789 --> 00:41:44,809  
their own proteins and the parasite

972  
00:41:42,679 --> 00:41:47,539  
and we have some very effective data

973  
00:41:44,809 --> 00:41:50,000  
from mouse malaria and from my in

974  
00:41:47,539 --> 00:41:52,190  
culture in vitro culture to say that

975  
00:41:50,000 --> 00:41:53,539  
this will work very very well so so what

976  
00:41:52,190 --> 00:41:55,970  
you're doing is you're designing a

977  
00:41:53,539 --> 00:41:57,679  
compound that kind of fits like a key

978  
00:41:55,969 --> 00:41:59,689  
into the lock into a part of that ended

979  
00:41:57,679 --> 00:42:01,969  
about you absolutely so the enzymes are

980  
00:41:59,690 --> 00:42:04,340  
pretty Aizaz so they break down proteins

981  
00:42:01,969 --> 00:42:05,839  
generally so what we're doing is

982  
00:42:04,340 --> 00:42:07,250  
essentially putting a compound into the

983  
00:42:05,840 --> 00:42:10,640  
middle of that crow DA's where it would

984  
00:42:07,250 --> 00:42:11,929  
normally in a normal situation would you

985  
00:42:10,639 --> 00:42:13,519  
know choose something up or break it

986  
00:42:11,929 --> 00:42:16,460  
down we're actually going to stop that

987  
00:42:13,519 --> 00:42:17,840  
radios from working completely and so

988  
00:42:16,460 --> 00:42:20,240  
what we were doing is inhibiting the

989  
00:42:17,840 --> 00:42:22,220  
function of that produce and then it's

990  
00:42:20,239 --> 00:42:23,899  
essentially den the water it can't do

991  
00:42:22,219 --> 00:42:26,359  
what it's meant to do and it stops the

992  
00:42:23,900 --> 00:42:29,660  
process of hemoglobin digestion these

993  
00:42:26,360 --> 00:42:31,039  
methods share is different to how some

994  
00:42:29,659 --> 00:42:32,599  
drug development processes work by

995  
00:42:31,039 --> 00:42:34,670  
screening large quantities of say

996  
00:42:32,599 --> 00:42:35,900  
naturally occurring compounds but the

997  
00:42:34,670 --> 00:42:38,180  
method you're using is really very

998

00:42:35,900 --> 00:42:39,800  
specific isn't it by working out the

999  
00:42:38,179 --> 00:42:41,419  
shape of this enzyme first and then

1000  
00:42:39,800 --> 00:42:43,610  
designing something to fit into it yep

1001  
00:42:41,420 --> 00:42:44,900  
we've been very very lucky I mean from a

1002  
00:42:43,610 --> 00:42:46,220  
drug design point of view everyone would

1003  
00:42:44,900 --> 00:42:48,019  
like to go do what we've done and

1004  
00:42:46,219 --> 00:42:49,699  
sometimes it's not possible so what we

1005  
00:42:48,019 --> 00:42:51,800  
did was go and actually look at the

1006  
00:42:49,699 --> 00:42:54,169  
detail the atomic details of the two

1007  
00:42:51,800 --> 00:42:55,700  
enzymes and we can really now tell this

1008  
00:42:54,170 --> 00:42:56,869  
you know when we look at commercial

1009  
00:42:55,699 --> 00:42:58,819  
compounds that are out there we could

1010  
00:42:56,869 --> 00:43:01,069  
say now that won't work because of this

1011  
00:42:58,820 --> 00:43:03,530  
because we have exquisite detail of

1012  
00:43:01,070 --> 00:43:04,910

these active sites so now we can

1013

00:43:03,530 --> 00:43:06,530

actually go through with the help of

1014

00:43:04,909 --> 00:43:08,179

medicinal chemists and so you know

1015

00:43:06,530 --> 00:43:10,280

pharmaceutical and it's not chemist who

1016

00:43:08,179 --> 00:43:11,629

understand that you know chemicals have

1017

00:43:10,280 --> 00:43:13,070

got to make it through to the human body

1018

00:43:11,630 --> 00:43:15,380

and they've got to be soluble in water

1019

00:43:13,070 --> 00:43:16,730

and then can't be toxic and you know we

1020

00:43:15,380 --> 00:43:18,559

can say that I mole can we have this

1021

00:43:16,730 --> 00:43:19,760

compound here and they can go yes or no

1022

00:43:18,559 --> 00:43:21,139

and they can say well can we add that

1023

00:43:19,760 --> 00:43:22,610

there and I will be able to say to them

1024

00:43:21,139 --> 00:43:25,250

you will know you can't because that

1025

00:43:22,610 --> 00:43:27,200

won't fit with the protease so it does

1026

00:43:25,250 --> 00:43:29,869

give us incredible detail to go and

1027  
00:43:27,199 --> 00:43:32,449  
design drugs that will hopefully work so

1028  
00:43:29,869 --> 00:43:34,609  
yeah well you demand that method by

1029  
00:43:32,449 --> 00:43:36,349  
analyzing the protein by its structure

1030  
00:43:34,610 --> 00:43:38,570  
so you actually crystallize it do we do

1031  
00:43:36,349 --> 00:43:40,460  
yes and then how do you go from making

1032  
00:43:38,570 --> 00:43:43,369  
the crystal of a protein into working

1033  
00:43:40,460 --> 00:43:45,470  
out how it is structured what we do is

1034  
00:43:43,369 --> 00:43:47,358  
so we literally you make the protein

1035  
00:43:45,469 --> 00:43:50,088  
until you perform and you grow crystals

1036  
00:43:47,358 --> 00:43:51,469  
and that is a process in itself so if

1037  
00:43:50,088 --> 00:43:53,328  
you're lucky enough to get crystals of a

1038  
00:43:51,469 --> 00:43:55,759  
protein which we work for this

1039  
00:43:53,329 --> 00:43:56,960  
particular project what we do is we take

1040  
00:43:55,759 --> 00:43:59,990  
the crystals to the Australian sin

1041  
00:43:56,960 --> 00:44:02,210  
contrato and that's a large x-ray being

1042  
00:43:59,989 --> 00:44:04,489  
facility and basically we throw x-ray

1043  
00:44:02,210 --> 00:44:06,470  
beams at it and the idea being that the

1044  
00:44:04,489 --> 00:44:08,989  
crystal is solid and the x-ray beams hit

1045  
00:44:06,469 --> 00:44:11,179  
it and they diffract in a certain

1046  
00:44:08,989 --> 00:44:13,068  
pattern and the way they differ act the

1047  
00:44:11,179 --> 00:44:14,808  
way they bounce off the crystal will be

1048  
00:44:13,068 --> 00:44:16,940  
dependent on what the protein looks like

1049  
00:44:14,809 --> 00:44:18,259  
in three-dimensional space so we can't

1050  
00:44:16,940 --> 00:44:19,909  
see the protein of course it's beyond

1051  
00:44:18,259 --> 00:44:21,619  
what we can see but what we do is take

1052  
00:44:19,909 --> 00:44:23,568  
the diffraction data from those x-ray

1053  
00:44:21,619 --> 00:44:25,640  
beans and through mathematical

1054  
00:44:23,568 --> 00:44:27,768  
calculations and a lot of computational

1055

00:44:25,639 --> 00:44:29,328  
power we convert that to what that means

1056  
00:44:27,768 --> 00:44:31,189  
in terms of three-dimensional space and

1057  
00:44:29,329 --> 00:44:33,650  
that becomes our x-ray crystal structure

1058  
00:44:31,190 --> 00:44:35,240  
so is that a similar process to so how

1059  
00:44:33,650 --> 00:44:36,889  
the structure of DNA was finally

1060  
00:44:35,239 --> 00:44:38,298  
anticipated absolutely completely the

1061  
00:44:36,889 --> 00:44:39,949  
scientists had would know about that

1062  
00:44:38,298 --> 00:44:42,170  
yeah how the Delta Felix was eventually

1063  
00:44:39,949 --> 00:44:43,578  
yet a lucid and an interesting new the

1064  
00:44:42,170 --> 00:44:46,220  
first protein I think to be crystallized

1065  
00:44:43,579 --> 00:44:47,630  
was he an igloo oh so am I glogan was

1066  
00:44:46,219 --> 00:44:49,879  
one of the first ones ever to be done

1067  
00:44:47,630 --> 00:44:51,858  
for a protein structure and that's where

1068  
00:44:49,880 --> 00:44:53,509  
the study of structural biology came

1069  
00:44:51,858 --> 00:44:56,389

from was the diffraction data from

1070

00:44:53,509 --> 00:44:58,099

protein crystals and that translation

1071

00:44:56,389 --> 00:44:59,420

and calculation from depression data to

1072

00:44:58,099 --> 00:45:01,430

what it looks like in three-dimensional

1073

00:44:59,420 --> 00:45:04,099

space yeah so this is a really good

1074

00:45:01,429 --> 00:45:05,629

example sharing of how basic science

1075

00:45:04,099 --> 00:45:08,630

that you and I do in the lab every day

1076

00:45:05,630 --> 00:45:10,190

you know which is sometimes people don't

1077

00:45:08,630 --> 00:45:13,309

really understand how this applies to a

1078

00:45:10,190 --> 00:45:15,259

bigger problem and in the developing

1079

00:45:13,309 --> 00:45:16,579

world and also in a tentative sanity but

1080

00:45:15,259 --> 00:45:17,509

in addition I just wanted you to give

1081

00:45:16,579 --> 00:45:19,039

Alice doesn't idea

1082

00:45:17,509 --> 00:45:20,958

how many people are involved in this

1083

00:45:19,039 --> 00:45:23,630

project if I know you have is pretty

1084  
00:45:20,958 --> 00:45:26,239  
lots of vibrating I do under now I do

1085  
00:45:23,630 --> 00:45:28,039  
and to be fair projects like mine simply

1086  
00:45:26,239 --> 00:45:30,289  
can't exist one laboratory these days

1087  
00:45:28,039 --> 00:45:32,089  
cannot do the science that we need to do

1088  
00:45:30,289 --> 00:45:33,709  
I mean our understanding has progressed

1089  
00:45:32,088 --> 00:45:35,898  
so far that you need to bring in people

1090  
00:45:33,708 --> 00:45:37,728  
with every level of expertise so I'm a

1091  
00:45:35,898 --> 00:45:40,068  
structural biologist so I do x-ray

1092  
00:45:37,728 --> 00:45:41,629  
crystallography um and we do structural

1093  
00:45:40,068 --> 00:45:43,219  
biology so we do this kind of

1094  
00:45:41,630 --> 00:45:44,929  
computational design and things like

1095  
00:45:43,219 --> 00:45:47,599  
that minus university has a huge

1096  
00:45:44,929 --> 00:45:50,239  
structural biology unit and that's our

1097  
00:45:47,599 --> 00:45:51,769  
focus for this project however of course

1098  
00:45:50,239 --> 00:45:54,199  
it's a malarial project I'm not a

1099  
00:45:51,768 --> 00:45:55,668  
malarial parasitologist so we have a

1100  
00:45:54,199 --> 00:45:56,898  
large group in Queensland at the

1101  
00:45:55,668 --> 00:45:59,328  
queensland institute of medical research

1102  
00:45:56,898 --> 00:46:01,788  
and that's headed up by dr. Don Garber

1103  
00:45:59,329 --> 00:46:03,739  
and they've done huge amounts of

1104  
00:46:01,789 --> 00:46:06,259  
research into this they've done mouse

1105  
00:46:03,739 --> 00:46:08,088  
murine some studies and malaria so of

1106  
00:46:06,259 --> 00:46:09,798  
course we can't you know test humans for

1107  
00:46:08,088 --> 00:46:13,308  
our drugs so we do have to test my eyes

1108  
00:46:09,798 --> 00:46:15,739  
yeah they've also done in culture all of

1109  
00:46:13,309 --> 00:46:18,349  
the human parasite cell lines and

1110  
00:46:15,739 --> 00:46:20,509  
testing so all the parasitology has been

1111  
00:46:18,349 --> 00:46:22,009  
down here in Queensland the actual

1112

00:46:20,509 --> 00:46:24,469  
enzyme itself was identified by

1113  
00:46:22,009 --> 00:46:25,699  
Professor John Dalton who at the time

1114  
00:46:24,469 --> 00:46:28,639  
was at the university of technology

1115  
00:46:25,699 --> 00:46:30,679  
sydney and he and his students and

1116  
00:46:28,639 --> 00:46:32,689  
postdocs actually identified the

1117  
00:46:30,679 --> 00:46:33,829  
proteases they worked out how they

1118  
00:46:32,688 --> 00:46:36,228  
worked they worked out how to purify

1119  
00:46:33,829 --> 00:46:38,059  
them and make them soluble professor

1120  
00:46:36,228 --> 00:46:39,408  
Dalton now is at McGill University in

1121  
00:46:38,059 --> 00:46:42,229  
Canada so we continue to have a great

1122  
00:46:39,409 --> 00:46:43,639  
collaboration with him over there the

1123  
00:46:42,228 --> 00:46:45,978  
Australian synket ron has been a huge

1124  
00:46:43,639 --> 00:46:47,899  
resource for this you can't do a drug

1125  
00:46:45,978 --> 00:46:49,278  
design without a synchrotron in your

1126  
00:46:47,898 --> 00:46:51,199

nation so we used to have to go to

1127

00:46:49,278 --> 00:46:53,179

Chicago before Australia secret ron was

1128

00:46:51,199 --> 00:46:54,559

built now I'm very lucky than 10 minutes

1129

00:46:53,179 --> 00:46:56,509

down the road from there and we have

1130

00:46:54,559 --> 00:46:57,590

allocated time it wouldn't have been

1131

00:46:56,509 --> 00:46:59,539

possible with

1132

00:46:57,590 --> 00:47:01,760

and then the drugs themselves so the

1133

00:46:59,539 --> 00:47:02,929

chemistry of what we build it's very

1134

00:47:01,760 --> 00:47:04,370

easy for me to look on a cult and

1135

00:47:02,929 --> 00:47:05,899

computer and say I need that and that

1136

00:47:04,369 --> 00:47:08,509

and that you need to find someone to

1137

00:47:05,900 --> 00:47:10,460

make it and so we have groups from

1138

00:47:08,510 --> 00:47:12,140

America and Poland who made all of those

1139

00:47:10,460 --> 00:47:14,750

compounds and of course we have a low

1140

00:47:12,139 --> 00:47:17,599

funding body to pay bills so it's a huge

1141  
00:47:14,750 --> 00:47:19,340  
collaboration things projects and alone

1142  
00:47:17,599 --> 00:47:21,199  
and get bigger as I go along too yeah

1143  
00:47:19,340 --> 00:47:22,760  
well thanks very much for talking to us

1144  
00:47:21,199 --> 00:47:24,379  
today Sheena and good luck with the rest

1145  
00:47:22,760 --> 00:47:27,260  
of your work for malaria thanks very

1146  
00:47:24,380 --> 00:47:29,420  
much for that well there's just another

1147  
00:47:27,260 --> 00:47:31,400  
example of how basic bench science is

1148  
00:47:29,420 --> 00:47:34,250  
helping solve a big clinical problem in

1149  
00:47:31,400 --> 00:47:36,289  
the developing world we thank dr. Sheena

1150  
00:47:34,250 --> 00:47:37,969  
McGowan for her time and if you'd like

1151  
00:47:36,289 --> 00:47:43,340  
to know more about her work and that of

1152  
00:47:37,969 --> 00:47:46,129  
her team head to ww em on a CD uau and

1153  
00:47:43,340 --> 00:47:47,690  
search for dr. Sheena McGowan or you can

1154  
00:47:46,130 --> 00:47:51,170  
find some more information about her

1155  
00:47:47,690 --> 00:47:52,940  
work on skeptics book calm and until

1156  
00:47:51,170 --> 00:47:55,599  
next time this has been dr. Reggie

1157  
00:47:52,940 --> 00:47:55,599  
reports

1158  
00:48:04,739 --> 00:48:10,259  
hello I'm Tony Pittman the presenter of

1159  
00:48:07,989 --> 00:48:13,179  
the weekly radio show and podcast

1160  
00:48:10,260 --> 00:48:15,640  
reality check broadcast from here in

1161  
00:48:13,179 --> 00:48:17,440  
Melbourne Australia and if you like

1162  
00:48:15,639 --> 00:48:19,509  
listening to the skeptic zone maybe

1163  
00:48:17,440 --> 00:48:22,869  
you'd like to check out reality check

1164  
00:48:19,510 --> 00:48:26,319  
each week we bring you a roundup of LGBT

1165  
00:48:22,869 --> 00:48:29,858  
news that's news related to lesbian gay

1166  
00:48:26,318 --> 00:48:33,579  
bisexual and transgender issues plus a

1167  
00:48:29,858 --> 00:48:35,619  
movie review plus a serious skeptical

1168  
00:48:33,579 --> 00:48:39,730  
analysis of a topic related to

1169

00:48:35,619 --> 00:48:41,108  
pseudoscience or the paranormal so if it

1170  
00:48:39,730 --> 00:48:44,798  
sounds like it could be right up your

1171  
00:48:41,108 --> 00:48:48,489  
alley visit our website at reality check

1172  
00:48:44,798 --> 00:48:51,519  
online dot net there you can listen

1173  
00:48:48,489 --> 00:48:57,389  
online download episodes or subscribe

1174  
00:48:51,519 --> 00:48:57,389  
that's reality check online dot net

1175  
00:49:12,019 --> 00:49:17,429  
thank you for joining me for this

1176  
00:49:14,250 --> 00:49:19,409  
episode of the skeptic zone well we've

1177  
00:49:17,429 --> 00:49:21,000  
got another year ahead of us and that's

1178  
00:49:19,409 --> 00:49:24,149  
going to be leading up to town Australia

1179  
00:49:21,000 --> 00:49:27,449  
of course in November November the 26 to

1180  
00:49:24,150 --> 00:49:29,548  
the 28 this year lots of details about

1181  
00:49:27,449 --> 00:49:31,528  
that in the next couple of months I

1182  
00:49:29,548 --> 00:49:35,730  
think at the Australian skeptics website

1183  
00:49:31,528 --> 00:49:37,858

at wwc optics com au and of course the

1184

00:49:35,730 --> 00:49:44,429

james randi educational foundation's

1185

00:49:37,858 --> 00:49:45,719

website at www are indeed o RG so until

1186

00:49:44,429 --> 00:49:47,879

next week and I think we'll have a think

1187

00:49:45,719 --> 00:49:53,699

tank next week this is Richard Saunders

1188

00:49:47,880 --> 00:49:56,160

signing off from Sydney Australia you

1189

00:49:53,699 --> 00:50:00,778

mean listening to the skeptic zone visit

1190

00:49:56,159 --> 00:50:03,239

our website at wwc a petting zoo TV for

1191

00:50:00,778 --> 00:50:05,550

comments contacts and extra video

1192

00:50:03,239 --> 00:50:08,489

reports

1193

00:50:05,550 --> 00:50:10,530

was it

1194

00:50:08,489 --> 00:50:13,279

me

1195

00:50:10,530 --> 00:50:13,280

no check

1196

00:50:24,239 --> 00:50:26,299

you