

1  
00:00:00,000 --> 00:00:05,339  
the skeptic zone is brought to you by

2  
00:00:01,860 --> 00:00:08,789  
dr. Bob's trivia quiz visit dr. Bob's

3  
00:00:05,339 --> 00:00:17,789  
quiz wordpress.com and see if you can

4  
00:00:08,789 --> 00:00:20,670  
match wits with dr. Bob welcome to the

5  
00:00:17,789 --> 00:00:24,380  
skeptic zone the podcast from Australia

6  
00:00:20,670 --> 00:00:24,380  
for science and reason

7  
00:00:33,128 --> 00:00:40,128  
hello and welcome to the skeptic zone

8  
00:00:35,689 --> 00:00:42,890  
number 317 for the 16th of November 2014

9  
00:00:40,128 --> 00:00:44,988  
or 2014 or that year that came after

10  
00:00:42,890 --> 00:00:47,570  
last main are here filling in for

11  
00:00:44,988 --> 00:00:50,030  
Richard Saunders who's out of action but

12  
00:00:47,570 --> 00:00:51,558  
he's not out of action if you know what

13  
00:00:50,030 --> 00:00:54,049  
I mean anyway he's out of the other

14  
00:00:51,558 --> 00:00:56,929  
action for this week and he cannot speak

15  
00:00:54,049 --> 00:00:59,299  
yes Richard Saunders the throat that

16  
00:00:56,929 --> 00:01:02,329  
dare not speak its name can I say that

17  
00:00:59,299 --> 00:01:04,819  
poor Richard anyway send you up send

18  
00:01:02,329 --> 00:01:06,530  
your condolences care of this podcast to

19  
00:01:04,819 --> 00:01:09,709  
Richard and he'll be back on deck before

20  
00:01:06,530 --> 00:01:12,079  
you know it but the deck is the deck of

21  
00:01:09,709 --> 00:01:14,299  
the SS lollipop but he'll still be there

22  
00:01:12,079 --> 00:01:16,368  
as a result as a result of this week's

23  
00:01:14,299 --> 00:01:19,728  
show the part of Richard Saunders will

24  
00:01:16,368 --> 00:01:21,799  
be played by Maynard wearing no pants

25  
00:01:19,728 --> 00:01:24,978  
which is a good thing it's an audio

26  
00:01:21,799 --> 00:01:26,569  
podcast and there's no cover art here's

27  
00:01:24,978 --> 00:01:28,670  
what we've got lots and lots and lots of

28  
00:01:26,569 --> 00:01:30,169  
skeptical goodness speaking of skeptical

29

00:01:28,670 --> 00:01:32,929  
goodness you can catch me on the

30  
00:01:30,170 --> 00:01:35,750  
splitting cases podcast in which I sold

31  
00:01:32,929 --> 00:01:38,118  
that age-old skeptical question which is

32  
00:01:35,750 --> 00:01:40,129  
the better movie can't stop the music or

33  
00:01:38,118 --> 00:01:42,438  
spice world okay the answer isn't

34  
00:01:40,129 --> 00:01:44,359  
exactly a skeptical one but it is as the

35  
00:01:42,438 --> 00:01:46,699  
religious amongst you would believe a

36  
00:01:44,359 --> 00:01:48,680  
revealed truth anyway that's the

37  
00:01:46,700 --> 00:01:50,269  
splitting cases podcast they've got none

38  
00:01:48,680 --> 00:01:52,280  
that nonsense here today we've got some

39  
00:01:50,269 --> 00:01:53,868  
other nonsense at the top of the show we

40  
00:01:52,280 --> 00:01:56,540  
have an interview with dr. Julie ladder

41  
00:01:53,868 --> 00:01:58,700  
The Skeptical vet now this was done

42  
00:01:56,540 --> 00:01:59,930  
before which his voice went south which

43  
00:01:58,700 --> 00:02:01,820

means he was still at the top part of

44

00:01:59,930 --> 00:02:03,710

New South Wales at the time and dr.

45

00:02:01,819 --> 00:02:05,929

Julie will set us on some wacky woo

46

00:02:03,709 --> 00:02:08,060

she's had to deal with as a vet because

47

00:02:05,930 --> 00:02:10,700

believe you me the wacky woo world is

48

00:02:08,060 --> 00:02:12,949

not just confined to those of us with a

49

00:02:10,699 --> 00:02:15,530

monkey vault brain I'm sorry that should

50

00:02:12,949 --> 00:02:17,328

be a primate evolved brain I thought you

51

00:02:15,530 --> 00:02:19,579

got me there but no I read a book once

52

00:02:17,329 --> 00:02:21,829

then it's this week in science from our

53

00:02:19,579 --> 00:02:23,540

iOS man they've been working hard in

54

00:02:21,829 --> 00:02:26,239

South Australia they have decriminalized

55

00:02:23,539 --> 00:02:27,650

pot then they recriminate and I don't

56

00:02:26,239 --> 00:02:29,659

know what's going on but has a lot to do

57

00:02:27,650 --> 00:02:31,730

with the output of our iOS it's all

58  
00:02:29,659 --> 00:02:33,199  
happening out of Adelaide it's not just

59  
00:02:31,729 --> 00:02:35,298  
the city of weird murders anymore and

60  
00:02:33,199 --> 00:02:37,989  
around off the show it's evidence please

61  
00:02:35,299 --> 00:02:40,900  
that's pronounced evidence

62  
00:02:37,990 --> 00:02:42,340  
easy with Joe alabaster now this week

63  
00:02:40,900 --> 00:02:44,319  
she's looking at the reaction that

64  
00:02:42,340 --> 00:02:47,469  
homeopathy got when it claimed a good

65  
00:02:44,319 --> 00:02:49,629  
treat Ebola let's just say um it was not

66  
00:02:47,469 --> 00:02:51,699  
overwhelmingly good that's probably the

67  
00:02:49,629 --> 00:02:55,680  
best way to put it I like the guy who

68  
00:02:51,699 --> 00:02:58,599  
flew from Vermont to say he could cure

69  
00:02:55,680 --> 00:03:00,849  
Ebola using time travel in quantum and

70  
00:02:58,599 --> 00:03:02,620  
claimed that he was a doctor well

71  
00:03:00,849 --> 00:03:04,569  
obviously that's a stupid because if

72  
00:03:02,620 --> 00:03:08,140  
he's making that claim he would be the

73  
00:03:04,569 --> 00:03:11,709  
doctor said topical and humorous now if

74  
00:03:08,139 --> 00:03:14,649  
you'd like to meet Richard Saunders Joe

75  
00:03:11,710 --> 00:03:16,930  
alabaster I'll be hiding a cupboard and

76  
00:03:14,650 --> 00:03:18,460  
other things at the biggest rayon

77  
00:03:16,930 --> 00:03:20,469  
skeptics National Convention and we're

78  
00:03:18,460 --> 00:03:22,740  
going to live which cupboard and it's

79  
00:03:20,469 --> 00:03:25,599  
not a closet it's slightly smaller

80  
00:03:22,740 --> 00:03:27,670  
that's the 20 go the 30th of November in

81  
00:03:25,599 --> 00:03:29,560  
chatswood now it's just going to be

82  
00:03:27,669 --> 00:03:32,409  
happening there basically let's just

83  
00:03:29,560 --> 00:03:34,420  
honestly tell you if you aren't going to

84  
00:03:32,409 --> 00:03:35,859  
this event you have to have a good look

85  
00:03:34,419 --> 00:03:37,659  
at what you're doing in your life and

86

00:03:35,860 --> 00:03:40,060  
either put a big tick next to it or not

87  
00:03:37,659 --> 00:03:41,409  
that just make or break time like what

88  
00:03:40,060 --> 00:03:43,629  
I'm going to be talking to George Arab

89  
00:03:41,409 --> 00:03:45,579  
but if you like to meet everybody get

90  
00:03:43,629 --> 00:03:46,479  
going and get to that website you've got

91  
00:03:45,580 --> 00:03:47,980  
you're going to make everyone's going to

92  
00:03:46,479 --> 00:03:50,679  
be there you're going to hear stories

93  
00:03:47,979 --> 00:03:52,539  
about it I'm going to do over 2600

94  
00:03:50,680 --> 00:03:54,069  
interviews so that there will no be

95  
00:03:52,539 --> 00:03:55,509  
about me after this convention there

96  
00:03:54,069 --> 00:03:58,120  
won't be a skipping zone it'll just be

97  
00:03:55,509 --> 00:04:00,789  
it'll be the National Convention skeptic

98  
00:03:58,120 --> 00:04:02,409  
zone show for the next three years it's

99  
00:04:00,789 --> 00:04:04,359  
all happening at the skeptics National

100  
00:04:02,409 --> 00:04:06,310

Convention 28 the 30th November in

101

00:04:04,360 --> 00:04:07,930

chatswood who knows i might even

102

00:04:06,310 --> 00:04:09,640

interview you and your better have an

103

00:04:07,930 --> 00:04:11,469

answer prepared and it doesn't even have

104

00:04:09,639 --> 00:04:14,019

to be to one of my questions so i could

105

00:04:11,469 --> 00:04:16,810

just say how you today and you can say

106

00:04:14,020 --> 00:04:19,180

bundaberg and then I'll just have to

107

00:04:16,810 --> 00:04:20,530

guess see that just throws it completely

108

00:04:19,180 --> 00:04:22,930

back on the interview it's an old ABC

109

00:04:20,529 --> 00:04:24,279

tactic just have a question ready for

110

00:04:22,930 --> 00:04:25,720

whatever they ask you first I mean the

111

00:04:24,279 --> 00:04:27,489

Prime Minister goes on there and they

112

00:04:25,720 --> 00:04:29,320

going how you tonight and he goes I'm

113

00:04:27,490 --> 00:04:30,639

not so sure about that who told you see

114

00:04:29,319 --> 00:04:32,829

and let's just get you out of the

115  
00:04:30,639 --> 00:04:35,019  
trouble straightaway and like I said get

116  
00:04:32,829 --> 00:04:37,240  
yep so get that really and for more

117  
00:04:35,019 --> 00:04:38,889  
information for more information about

118  
00:04:37,240 --> 00:04:41,379  
the National skeptics conference please

119  
00:04:38,889 --> 00:04:43,539  
go for the love of whatever you believe

120  
00:04:41,379 --> 00:04:45,550  
in other than God hang on hang on I read

121  
00:04:43,540 --> 00:04:47,620  
a book once no that's not right for the

122  
00:04:45,550 --> 00:04:51,699  
love of not believing in any deity at

123  
00:04:47,620 --> 00:04:53,500  
all you go to convention skeptics

124  
00:04:51,699 --> 00:04:55,870  
on that are you and I would actually

125  
00:04:53,500 --> 00:04:57,699  
like to talk to any skeptics who are

126  
00:04:55,870 --> 00:04:59,889  
there who are Christians who are

127  
00:04:57,699 --> 00:05:02,050  
believers because I gotta say haven't

128  
00:04:59,889 --> 00:05:04,449  
met many in the skeptics movement and

129

00:05:02,050 --> 00:05:05,949

I'm interested in in hearing well why

130

00:05:04,449 --> 00:05:07,599

you believe what you believe and had

131

00:05:05,949 --> 00:05:09,009

that works for you and I'd like to know

132

00:05:07,600 --> 00:05:10,390

that and I think we might like to do

133

00:05:09,009 --> 00:05:12,730

that that's just an offer out there

134

00:05:10,389 --> 00:05:14,019

remember how that answer ready bundaberg

135

00:05:12,730 --> 00:05:15,280

could be one of them but since I've

136

00:05:14,019 --> 00:05:17,019

already used that answer you'll have to

137

00:05:15,279 --> 00:05:19,839

find your own well now it's time for me

138

00:05:17,019 --> 00:05:22,870

to go into the next room look under the

139

00:05:19,839 --> 00:05:26,289

bed and find out what the penthouse pet

140

00:05:22,870 --> 00:05:27,579

of the month in 1981 as a car I can't

141

00:05:26,290 --> 00:05:29,680

reveal that answer you'll have to look

142

00:05:27,579 --> 00:05:33,069

that I want up on the internet what did

143

00:05:29,680 --> 00:05:34,300  
she win as a car and when you see the

144  
00:05:33,069 --> 00:05:36,069  
answer you really have to wonder if the

145  
00:05:34,300 --> 00:05:37,210  
whole thing was worth it but while I'm

146  
00:05:36,069 --> 00:05:39,550  
doing that I hope you can find

147  
00:05:37,209 --> 00:05:42,269  
everything under the bed there enjoy the

148  
00:05:39,550 --> 00:05:42,270  
Skip pick zone

149  
00:05:44,220 --> 00:05:46,250  
Oh

150  
00:06:01,110 --> 00:06:06,819  
and joining me now from their beautiful

151  
00:06:05,379 --> 00:06:08,199  
place in the world that won't be told

152  
00:06:06,819 --> 00:06:10,120  
it's beautiful i'd like to visit me i'd

153  
00:06:08,199 --> 00:06:11,680  
like to visit everywhere whenever I

154  
00:06:10,120 --> 00:06:13,329  
interview people I always like to go and

155  
00:06:11,680 --> 00:06:15,788  
visit Lee maybe even if I've never been

156  
00:06:13,329 --> 00:06:18,459  
before from what I imagined to be

157  
00:06:15,788 --> 00:06:21,339

beautiful indianapolis in indiana it's

158

00:06:18,459 --> 00:06:24,609

dr. julie ladder The Skeptical vet hello

159

00:06:21,339 --> 00:06:26,288

Julie era turd it's been a little while

160

00:06:24,610 --> 00:06:27,788

since we've caught up with you in fact

161

00:06:26,288 --> 00:06:30,098

August last year was the last time

162

00:06:27,788 --> 00:06:34,029

you're on the skeptic zone and for those

163

00:06:30,098 --> 00:06:37,629

people who may not remember you spend a

164

00:06:34,029 --> 00:06:39,638

long time I guess in at the end or on

165

00:06:37,629 --> 00:06:44,408

the island of sand kits to become a vent

166

00:06:39,639 --> 00:06:47,079

and I bet you still miss that oh i do i

167

00:06:44,408 --> 00:06:49,418

miss the island so much gotten my blood

168

00:06:47,079 --> 00:06:55,209

in a big bad way so how are you coping

169

00:06:49,418 --> 00:06:58,689

of in the real world uh work keeps me

170

00:06:55,209 --> 00:07:01,598

pretty busy but I definitely I'm going

171

00:06:58,689 --> 00:07:03,728

on a Caribbean cruise and fabulous so I

172  
00:07:01,598 --> 00:07:06,788  
guess I couldn't sail away for two very

173  
00:07:03,728 --> 00:07:09,449  
long he going back to some kids not to

174  
00:07:06,788 --> 00:07:12,218  
think it's now when definitely effective

175  
00:07:09,449 --> 00:07:14,199  
island living for a week at least well

176  
00:07:12,218 --> 00:07:17,918  
it'll i'm sure it'll seem very familiar

177  
00:07:14,199 --> 00:07:22,300  
to you yeah I'm probably never gonna

178  
00:07:17,918 --> 00:07:24,098  
leave the ocean for most part of it well

179  
00:07:22,300 --> 00:07:27,430  
maybe you should specialize and become a

180  
00:07:24,098 --> 00:07:29,889  
Marine veteran such a thing oh yeah

181  
00:07:27,430 --> 00:07:31,478  
actually one of my classmates took a job

182  
00:07:29,889 --> 00:07:35,468  
in florida and he's working primarily

183  
00:07:31,478 --> 00:07:37,538  
with aquatic mammals dolphins and things

184  
00:07:35,468 --> 00:07:40,060  
like that that sounds pretty good oh

185  
00:07:37,538 --> 00:07:42,399  
yeah yeah i can i could just picture you

186  
00:07:40,060 --> 00:07:44,889  
doing that because i have a picture of

187  
00:07:42,399 --> 00:07:47,739  
you in a wet suit under water with the

188  
00:07:44,889 --> 00:07:50,800  
whole scuba gear on because when i was

189  
00:07:47,740 --> 00:07:52,658  
getting dive certified down there I can

190  
00:07:50,800 --> 00:07:54,728  
tell you've got quite an affinity for

191  
00:07:52,658 --> 00:07:57,230  
animals just by the way you chat about

192  
00:07:54,728 --> 00:08:00,019  
them marine animals and all

193  
00:07:57,230 --> 00:08:03,560  
but what I was hoping to talk to you

194  
00:08:00,019 --> 00:08:07,189  
today about being a vet and and you've

195  
00:08:03,560 --> 00:08:10,699  
been a for-real vet now for a while I

196  
00:08:07,189 --> 00:08:13,430  
dealing with animals on a daily basis

197  
00:08:10,699 --> 00:08:17,990  
all sorts of animals large and small we

198  
00:08:13,430 --> 00:08:20,389  
have in what's been referred to as far

199  
00:08:17,990 --> 00:08:22,430  
as people go as the doctor Google

200

00:08:20,389 --> 00:08:24,289  
syndrome where people will Google their

201  
00:08:22,430 --> 00:08:25,939  
illnesses I'll see a rash on themselves

202  
00:08:24,290 --> 00:08:28,310  
or feel a bump or something run to

203  
00:08:25,939 --> 00:08:31,370  
Google come up with all sorts of crazy

204  
00:08:28,310 --> 00:08:35,899  
diagnosis but I understand this also

205  
00:08:31,370 --> 00:08:39,470  
happens to vets yeah um it's kind of

206  
00:08:35,899 --> 00:08:43,899  
like a a mixed blessing because we love

207  
00:08:39,470 --> 00:08:48,230  
owners who are invested and completely

208  
00:08:43,899 --> 00:08:51,049  
involved in in their pets care and do

209  
00:08:48,230 --> 00:08:53,450  
their homework it's fantastic if I say

210  
00:08:51,049 --> 00:08:55,879  
okay well your pet is hypothyroid or has

211  
00:08:53,450 --> 00:08:57,770  
diabetes and at their next follow-up

212  
00:08:55,879 --> 00:08:59,090  
visit they're like yeah well I've been

213  
00:08:57,769 --> 00:09:00,710  
reading on the internet about this

214  
00:08:59,090 --> 00:09:03,170

treatment and that treatment and I know

215

00:09:00,710 --> 00:09:05,120

the things to look out for that might

216

00:09:03,169 --> 00:09:07,969

you know signal that they're getting

217

00:09:05,120 --> 00:09:09,529

worse so i love it when i get the owners

218

00:09:07,970 --> 00:09:12,590

who put in the time and the effort

219

00:09:09,529 --> 00:09:14,539

that's fantastic what I'm less in love

220

00:09:12,590 --> 00:09:16,160

with is the owners who show up and

221

00:09:14,539 --> 00:09:17,719

they're like oh my dogs you know gaining

222

00:09:16,159 --> 00:09:19,399

weight even though we cut their food

223

00:09:17,720 --> 00:09:20,990

back and we've been exercising more so

224

00:09:19,399 --> 00:09:24,649

they're hypothyroid so just give me the

225

00:09:20,990 --> 00:09:26,840

thyroid really so they walk in already

226

00:09:24,649 --> 00:09:28,699

having diagnosed the animal themselves

227

00:09:26,840 --> 00:09:31,190

and they know what medicine they want

228

00:09:28,700 --> 00:09:34,129

you to prescribe yeah yeah they tell me

229  
00:09:31,190 --> 00:09:35,420  
like I want thyroxine or my dog's been

230  
00:09:34,129 --> 00:09:37,220  
shaking its head a lot it's got a ear

231  
00:09:35,419 --> 00:09:40,639  
infection put some medicine and IM it

232  
00:09:37,220 --> 00:09:44,290  
it's kind of like selling i don't want

233  
00:09:40,639 --> 00:09:46,580  
to say selling hello let's do this um

234  
00:09:44,289 --> 00:09:48,289  
getting owners to comply with a

235  
00:09:46,580 --> 00:09:50,150  
treatment plan that I've put together

236  
00:09:48,289 --> 00:09:52,669  
where it okay well we need to test their

237  
00:09:50,149 --> 00:09:54,319  
t4 then and see if it's lower I need to

238  
00:09:52,669 --> 00:09:57,500  
run an ear slob and look at it under a

239  
00:09:54,320 --> 00:09:58,790  
microscope they they've already made up

240  
00:09:57,500 --> 00:10:00,169  
their minds it's an ear infection just

241  
00:09:58,789 --> 00:10:03,259  
put medicine in it why can't you just

242  
00:10:00,169 --> 00:10:04,699  
give me medicine Wow and you then I kind

243  
00:10:03,259 --> 00:10:06,710  
of go into my whole explanation of well

244  
00:10:04,700 --> 00:10:09,620  
you know it could be bacteria it could

245  
00:10:06,710 --> 00:10:10,700  
be used of the kinds of bacteria could

246  
00:10:09,620 --> 00:10:12,710  
be they're different and I'm

247  
00:10:10,700 --> 00:10:15,770  
products that work better or worse so I

248  
00:10:12,710 --> 00:10:20,210  
really need the ear swab in order to

249  
00:10:15,769 --> 00:10:22,309  
give you the right medicine and that is

250  
00:10:20,210 --> 00:10:24,680  
definitely one of the struggles of being

251  
00:10:22,309 --> 00:10:26,929  
a veterinarian is you know you hear all

252  
00:10:24,679 --> 00:10:30,049  
these jokes of I know I became at that

253  
00:10:26,929 --> 00:10:32,750  
because I don't like people I haven't

254  
00:10:30,049 --> 00:10:36,229  
heard that one be four a huge part of

255  
00:10:32,750 --> 00:10:39,230  
what we do and especially explaining you

256  
00:10:36,230 --> 00:10:43,039  
know why I want certain things and why I

257

00:10:39,230 --> 00:10:45,560  
need certain Diagnostics it's a major

258  
00:10:43,039 --> 00:10:48,349  
part of what I do and dr. google doesn't

259  
00:10:45,559 --> 00:10:51,649  
make it easy sometimes no I can imagine

260  
00:10:48,350 --> 00:10:55,399  
so because this is a problem what can be

261  
00:10:51,649 --> 00:10:57,649  
a problem faced by GPS I don't know it's

262  
00:10:55,399 --> 00:10:59,269  
maybe not so much specialist maybe by

263  
00:10:57,649 --> 00:11:01,340  
the time people get to that stage there

264  
00:10:59,269 --> 00:11:03,679  
it's not such a problem but certainly

265  
00:11:01,340 --> 00:11:05,120  
we've heard about it with GPS as i said

266  
00:11:03,679 --> 00:11:07,759  
before people marching in and saying

267  
00:11:05,120 --> 00:11:10,159  
I've got this condition or I've got that

268  
00:11:07,759 --> 00:11:13,250  
condition and I want I want you to do

269  
00:11:10,159 --> 00:11:15,799  
this or that fort so although I

270  
00:11:13,250 --> 00:11:17,659  
shouldn't be surprised it happens to

271  
00:11:15,799 --> 00:11:20,659

vets I am surprised because it never

272

00:11:17,659 --> 00:11:24,199

never crossed my mind before do you find

273

00:11:20,659 --> 00:11:27,469

this a regular occurrence yeah yeah

274

00:11:24,200 --> 00:11:29,870

definitely and it did it very much

275

00:11:27,470 --> 00:11:32,330

ranges from the people who are like oh

276

00:11:29,870 --> 00:11:34,940

you know I i just read about it and so I

277

00:11:32,330 --> 00:11:37,280

thought that you know maybe we would be

278

00:11:34,940 --> 00:11:39,080

able to get the medicine without doing

279

00:11:37,279 --> 00:11:40,939

the swamp but now that you've explained

280

00:11:39,080 --> 00:11:43,730

it I understand why it's important that

281

00:11:40,940 --> 00:11:45,440

we do and then you get the other end who

282

00:11:43,730 --> 00:11:47,180

just their minds are made up and they

283

00:11:45,440 --> 00:11:51,320

think that you're I've been accused of

284

00:11:47,179 --> 00:11:54,559

stealing of over selling products or

285

00:11:51,320 --> 00:11:57,230

services of ripping people off and it

286  
00:11:54,559 --> 00:11:59,629  
hurts you know I'm not trying to rip you

287  
00:11:57,230 --> 00:12:04,879  
up and I'm trying to do the best thing

288  
00:11:59,629 --> 00:12:08,590  
for your pet and um it sucks when you

289  
00:12:04,879 --> 00:12:12,379  
get accused of being self interested or

290  
00:12:08,590 --> 00:12:15,410  
out for money when that's not your cool

291  
00:12:12,379 --> 00:12:17,120  
so you you've literally had people come

292  
00:12:15,409 --> 00:12:18,679  
in and say this is what's wrong with my

293  
00:12:17,120 --> 00:12:19,700  
pet I need this medicine he said now

294  
00:12:18,679 --> 00:12:20,949  
hang on a minute I've got to run some

295  
00:12:19,700 --> 00:12:24,370  
tests and they'll they'll

296  
00:12:20,950 --> 00:12:26,410  
argue the point with you but more than

297  
00:12:24,370 --> 00:12:31,330  
argued appointment they'll outright

298  
00:12:26,409 --> 00:12:33,149  
accuse me of malpractice and trying to

299  
00:12:31,330 --> 00:12:37,420  
sell them things that they don't need

300  
00:12:33,149 --> 00:12:40,000  
wow wow you know I don't want to sue

301  
00:12:37,419 --> 00:12:41,079  
portray this is the usual but it's

302  
00:12:40,000 --> 00:12:42,490  
definitely something that any

303  
00:12:41,080 --> 00:12:45,850  
veterinarian will tell you they deal

304  
00:12:42,490 --> 00:12:47,560  
with Wow the Internet age and it brings

305  
00:12:45,850 --> 00:12:50,470  
all sorts of interesting things to it to

306  
00:12:47,559 --> 00:12:53,439  
people but arguments in the veterinarian

307  
00:12:50,470 --> 00:12:56,860  
clinic that that I didn't foresee I must

308  
00:12:53,440 --> 00:12:58,810  
hit me hit and what what do you see most

309  
00:12:56,860 --> 00:13:00,070  
of in your practice is it simply the

310  
00:12:58,809 --> 00:13:02,079  
what we couldn't might call the

311  
00:13:00,070 --> 00:13:05,590  
traditional cats and dogs and my son no

312  
00:13:02,080 --> 00:13:08,080  
I don't know what else yeah it's mostly

313  
00:13:05,590 --> 00:13:10,300  
a cat and dog practice since I came in

314

00:13:08,080 --> 00:13:11,830  
I'm at a practice with four doctors now

315  
00:13:10,299 --> 00:13:14,259  
that I've joined there were three before

316  
00:13:11,830 --> 00:13:16,120  
um none of the three were terribly

317  
00:13:14,259 --> 00:13:19,450  
comfortable with doing any exotic animal

318  
00:13:16,120 --> 00:13:22,269  
medicine um exotic smiiing the pocket

319  
00:13:19,450 --> 00:13:24,310  
pets reptiles amphibians birds gerbils

320  
00:13:22,269 --> 00:13:26,610  
hamsters that kind of thing so those are

321  
00:13:24,309 --> 00:13:28,989  
more my thing and I'm definitely very

322  
00:13:26,610 --> 00:13:30,909  
interested in exotic animal medicine so

323  
00:13:28,990 --> 00:13:34,419  
I've been seeing a lot more of those

324  
00:13:30,909 --> 00:13:36,219  
kind of patients and then we're kind of

325  
00:13:34,419 --> 00:13:38,529  
running into well I need this then Enzo

326  
00:13:36,220 --> 00:13:41,950  
I'm bringing more diagnostic tools into

327  
00:13:38,529 --> 00:13:44,799  
the clinic too so it's um it's a growing

328  
00:13:41,950 --> 00:13:46,990

part of our practice the exotic pet

329

00:13:44,799 --> 00:13:51,519

market isn't that interesting and what

330

00:13:46,990 --> 00:13:53,289

would I mean you say what reptiles and

331

00:13:51,519 --> 00:13:57,269

things well you must have seen a few

332

00:13:53,289 --> 00:14:00,699

very strange exotic pets oh yeah and

333

00:13:57,269 --> 00:14:06,220

well not so much at my current practice

334

00:14:00,700 --> 00:14:10,000

by in clinics um I've I saw porcupines I

335

00:14:06,220 --> 00:14:12,009

saw a Patagonian cavy which is the

336

00:14:10,000 --> 00:14:14,649

second or third largest rodent in the

337

00:14:12,009 --> 00:14:19,990

world they be they look like on stilts

338

00:14:14,649 --> 00:14:24,279

and ton of enormous reptiles and birds

339

00:14:19,990 --> 00:14:29,860

giant parrots tons of cool stuff you see

340

00:14:24,279 --> 00:14:31,240

many snakes yeah yeah yeah um not I've

341

00:14:29,860 --> 00:14:32,919

seen a couple since I've been in private

342

00:14:31,240 --> 00:14:34,778

practice I saw a lot and when I

343  
00:14:32,919 --> 00:14:40,838  
is going to my clinical year school but

344  
00:14:34,778 --> 00:14:43,200  
um less so I do see um a lot of pocket

345  
00:14:40,839 --> 00:14:46,540  
pets and reptiles and things from

346  
00:14:43,200 --> 00:14:49,629  
petsmart the it's a pet store that they

347  
00:14:46,539 --> 00:14:52,958  
have live animals and I've been referred

348  
00:14:49,629 --> 00:14:56,100  
a lot of their pets from all around

349  
00:14:52,958 --> 00:14:58,809  
Indianapolis actually I've had as far as

350  
00:14:56,100 --> 00:15:01,750  
Avon which is about 13 miles away from

351  
00:14:58,809 --> 00:15:04,419  
the clinic and they've driven to come

352  
00:15:01,750 --> 00:15:07,208  
see me yeah so that's it's wonderful

353  
00:15:04,419 --> 00:15:09,729  
it's fantastic to you know have word of

354  
00:15:07,208 --> 00:15:11,379  
mouth spreading that I I have competence

355  
00:15:09,730 --> 00:15:14,159  
with exotics but it's kind of terrifying

356  
00:15:11,379 --> 00:15:17,588  
for being only four months out of school

357  
00:15:14,159 --> 00:15:18,759  
oh shoot exotic expert cozier and then I

358  
00:15:17,589 --> 00:15:21,310  
get something like I have no idea what

359  
00:15:18,759 --> 00:15:24,009  
that is now when we were chatting to you

360  
00:15:21,309 --> 00:15:25,859  
even earlier some years ago when you

361  
00:15:24,009 --> 00:15:30,189  
were still in the middle of your studies

362  
00:15:25,860 --> 00:15:33,490  
how how does the reality of what you

363  
00:15:30,190 --> 00:15:35,290  
have to face in a practice relate to or

364  
00:15:33,490 --> 00:15:38,320  
compared to what you thought it would be

365  
00:15:35,289 --> 00:15:41,679  
like during your years on some kids uh

366  
00:15:38,320 --> 00:15:43,720  
well I was a technician before I went to

367  
00:15:41,679 --> 00:15:47,739  
that school so I had a pretty realistic

368  
00:15:43,720 --> 00:15:52,360  
view of what clinical practice would be

369  
00:15:47,740 --> 00:15:56,049  
like um there are definitely those of my

370  
00:15:52,360 --> 00:15:57,459  
classmates who have less technical

371

00:15:56,049 --> 00:15:58,958  
experience before starting school and

372  
00:15:57,458 --> 00:16:01,448  
I'm sure this is good of a rude

373  
00:15:58,958 --> 00:16:03,159  
awakening especially yeah if you could

374  
00:16:01,448 --> 00:16:06,069  
imagine people are very attached to

375  
00:16:03,159 --> 00:16:08,620  
their pets and the emotions can run high

376  
00:16:06,070 --> 00:16:12,640  
oh absolutely absolutely without

377  
00:16:08,620 --> 00:16:15,850  
question you know from experience last

378  
00:16:12,639 --> 00:16:17,649  
year little cat Liddell died and you're

379  
00:16:15,850 --> 00:16:20,079  
very helpful in that net situation but

380  
00:16:17,649 --> 00:16:22,120  
all the motions run very high in we've

381  
00:16:20,078 --> 00:16:25,929  
still have Fred he's kicking around here

382  
00:16:22,120 --> 00:16:31,060  
somewhere mr. good fit for ya when the

383  
00:16:25,929 --> 00:16:33,879  
financial versus the attachment kind of

384  
00:16:31,059 --> 00:16:36,489  
dilemma happens is when we definitely

385  
00:16:33,879 --> 00:16:39,370

see some very high emotional states from

386

00:16:36,490 --> 00:16:40,930

our owners because it's very difficult

387

00:16:39,370 --> 00:16:45,068

sometimes they feel like they're being

388

00:16:40,929 --> 00:16:46,569

heartless or selfish or negligent even

389

00:16:45,068 --> 00:16:49,000

if if they just don't

390

00:16:46,570 --> 00:16:52,510

the finances there to manage a very

391

00:16:49,000 --> 00:16:54,610

critically ill pet and so we have some

392

00:16:52,509 --> 00:16:58,870

very serious times talks about you know

393

00:16:54,610 --> 00:17:00,610

it's okay and we have these limitations

394

00:16:58,870 --> 00:17:04,630

we know that we have X amount of dollars

395

00:17:00,610 --> 00:17:08,799

to work with and if the patient is in

396

00:17:04,630 --> 00:17:11,949

pain or to end-of-life issues terminal

397

00:17:08,799 --> 00:17:13,569

cancer that kind of thing then we sit

398

00:17:11,949 --> 00:17:15,850

down and have this talk of you're not a

399

00:17:13,569 --> 00:17:20,439

bad person you're not a bad owner this

400  
00:17:15,849 --> 00:17:22,629  
is what you can do and if what the pet

401  
00:17:20,440 --> 00:17:25,240  
requires goes beyond those financial

402  
00:17:22,630 --> 00:17:28,449  
means then you can end things too mainly

403  
00:17:25,240 --> 00:17:31,990  
and that's not a bad or a selfish choice

404  
00:17:28,449 --> 00:17:33,430  
so I I have very serious very difficult

405  
00:17:31,990 --> 00:17:36,849  
conversations pretty much of a daily

406  
00:17:33,430 --> 00:17:38,650  
basis with honors and a lot of times

407  
00:17:36,849 --> 00:17:40,959  
that's all they need is that reassurance

408  
00:17:38,650 --> 00:17:44,860  
that they're not a bad person and it's

409  
00:17:40,960 --> 00:17:48,519  
okay it is you've got fifty dollars in

410  
00:17:44,859 --> 00:17:51,009  
your wallet and you can't afford to do

411  
00:17:48,519 --> 00:17:53,170  
three days of hospitalization and IV

412  
00:17:51,009 --> 00:17:55,720  
fluids and pain meds and you just can't

413  
00:17:53,170 --> 00:17:57,370  
it's okay you know we understand we're

414  
00:17:55,720 --> 00:18:00,490  
not gonna be like well sorry about your

415  
00:17:57,369 --> 00:18:02,919  
lock out the door that's that's really

416  
00:18:00,490 --> 00:18:05,380  
interesting to hear that from you

417  
00:18:02,920 --> 00:18:08,410  
because i have just referring back to

418  
00:18:05,380 --> 00:18:11,020  
what a GP my dear will and I guess

419  
00:18:08,410 --> 00:18:13,870  
specialist too and we hear about how

420  
00:18:11,019 --> 00:18:16,269  
important the bedside manner is for for

421  
00:18:13,869 --> 00:18:18,819  
doctors to have a good rapport with

422  
00:18:16,269 --> 00:18:21,519  
their patients to put them at ease to to

423  
00:18:18,819 --> 00:18:23,230  
be understanding and I don't know what

424  
00:18:21,519 --> 00:18:25,660  
you'd call it with a vet though it's not

425  
00:18:23,230 --> 00:18:27,160  
quite a bedside manner you you might

426  
00:18:25,660 --> 00:18:28,330  
have they're still use the same

427  
00:18:27,160 --> 00:18:30,100  
terminology even though you're

428

00:18:28,329 --> 00:18:34,599  
technically correct yet it's like kennel

429  
00:18:30,099 --> 00:18:36,339  
side matter a kennel side matter maybe

430  
00:18:34,599 --> 00:18:38,529  
you should rename it that's right this

431  
00:18:36,339 --> 00:18:39,939  
that's again it's something I guess

432  
00:18:38,529 --> 00:18:41,799  
wouldn't cross a lot of people's minds

433  
00:18:39,940 --> 00:18:44,559  
but being in your situation you'd

434  
00:18:41,799 --> 00:18:46,750  
certainly have to deal with that uh and

435  
00:18:44,559 --> 00:18:49,539  
a great great deal more than your

436  
00:18:46,750 --> 00:18:50,859  
average your GP I would think yeah the

437  
00:18:49,539 --> 00:18:54,759  
average if he doesn't really discuss

438  
00:18:50,859 --> 00:18:56,529  
Ethan a Joe it is not really not really

439  
00:18:54,759 --> 00:18:58,289  
if we can get a slight giggle out of

440  
00:18:56,529 --> 00:19:02,879  
that you're absolutely right

441  
00:18:58,289 --> 00:19:05,579  
absolutely right and just to wrap things

442  
00:19:02,880 --> 00:19:09,300

up and I'd probably ask ask you this

443

00:19:05,579 --> 00:19:12,269

before but do you do and I'm sure about

444

00:19:09,299 --> 00:19:15,349

you this before but what sort of magical

445

00:19:12,269 --> 00:19:19,559

thinking does a vet encounter from

446

00:19:15,349 --> 00:19:23,309

owners woo and things like that all

447

00:19:19,559 --> 00:19:26,549

kinds of things I have owners who treat

448

00:19:23,309 --> 00:19:29,549

their cats fleas holistically with herbs

449

00:19:26,549 --> 00:19:31,789

and such and don't believe in heartworm

450

00:19:29,549 --> 00:19:34,470

medication or chemicals or drugs

451

00:19:31,789 --> 00:19:38,190

probably the latest one that I see a lot

452

00:19:34,470 --> 00:19:40,440

of is um people who are on these grain

453

00:19:38,190 --> 00:19:43,140

free diets who are convinced that grains

454

00:19:40,440 --> 00:19:47,240

are the root of all evil and dog and cat

455

00:19:43,140 --> 00:19:49,800

health issues and I've had so many itchy

456

00:19:47,240 --> 00:19:51,630

because for some reason allergies even

457  
00:19:49,799 --> 00:19:54,329  
food allergies and pets manifest as

458  
00:19:51,630 --> 00:19:57,300  
Toronto logic and they become very itchy

459  
00:19:54,329 --> 00:19:59,970  
and will tear themselves open scribe

460  
00:19:57,299 --> 00:20:02,250  
like biting and scratching um they'll

461  
00:19:59,970 --> 00:20:03,600  
get these itchy dogs and owners like I

462  
00:20:02,250 --> 00:20:07,230  
don't understand how she's still

463  
00:20:03,599 --> 00:20:10,500  
allergic she's on a grain free diet it

464  
00:20:07,230 --> 00:20:13,440  
so yeah that's probably the the gold

465  
00:20:10,500 --> 00:20:15,839  
star right now and the Wu tastic

466  
00:20:13,440 --> 00:20:17,850  
thinking of what I see on a daily basis

467  
00:20:15,839 --> 00:20:19,769  
have you had people come in saying I've

468  
00:20:17,849 --> 00:20:22,769  
been treating my dog with homeopathy or

469  
00:20:19,769 --> 00:20:26,849  
my cat without me over yeah um I

470  
00:20:22,769 --> 00:20:30,599  
actually recently just had um a fully

471  
00:20:26,849 --> 00:20:34,619  
paralyzed in the hind end dog come in

472  
00:20:30,599 --> 00:20:37,349  
and um it has a fairly poor prognosis as

473  
00:20:34,619 --> 00:20:41,159  
you can imagine within 24 hours if they

474  
00:20:37,349 --> 00:20:44,969  
receive surgery it can have a better

475  
00:20:41,160 --> 00:20:48,060  
prognosis but um it's just not a really

476  
00:20:44,970 --> 00:20:49,890  
great thing for me to have come in the

477  
00:20:48,059 --> 00:20:51,539  
door and have to talk to very upset

478  
00:20:49,890 --> 00:20:53,310  
owners who just came from home from work

479  
00:20:51,539 --> 00:20:55,920  
and found their dog you know unable to

480  
00:20:53,309 --> 00:20:58,289  
use his back legs and um so we kind of

481  
00:20:55,920 --> 00:20:59,880  
talked about well if you get to a

482  
00:20:58,289 --> 00:21:01,589  
specialist and you receive the surgery

483  
00:20:59,880 --> 00:21:06,830  
within 24 hours that's basically your

484  
00:21:01,589 --> 00:21:08,789  
dear only your only hope yeah um and

485

00:21:06,829 --> 00:21:10,679  
they went to the special ition they

486  
00:21:08,789 --> 00:21:11,940  
couldn't afford the surgery so they were

487  
00:21:10,680 --> 00:21:14,298  
treating with Cairo

488  
00:21:11,940 --> 00:21:17,730  
Arctic and acupuncture the last I heard

489  
00:21:14,298 --> 00:21:19,710  
Wow IQ puncture now that I can believe

490  
00:21:17,730 --> 00:21:22,110  
because I've heard about that for pets

491  
00:21:19,710 --> 00:21:25,590  
actually acupuncture for dogs and racing

492  
00:21:22,109 --> 00:21:28,469  
horses I think yep yeah chiropractic is

493  
00:21:25,589 --> 00:21:30,058  
huge in racing horses to leave you can

494  
00:21:28,470 --> 00:21:31,740  
imagine they don't they don't do spinal

495  
00:21:30,058 --> 00:21:35,579  
manipulation manually with their hands

496  
00:21:31,740 --> 00:21:37,409  
they have to use an air gun too yeah the

497  
00:21:35,579 --> 00:21:42,019  
spine of a horse you can imagine trying

498  
00:21:37,409 --> 00:21:45,690  
to crack us yeah but it boggles the mind

499  
00:21:42,019 --> 00:21:47,819

Annie a gun to folk IRA practicar a he

500

00:21:45,690 --> 00:21:54,240

can't you can't make this stuff up but

501

00:21:47,819 --> 00:21:57,089

somebody did ice over yeah um so that

502

00:21:54,240 --> 00:21:59,278

kind of stuff it it kills me sometimes

503

00:21:57,089 --> 00:22:01,470

because I know that that patients not

504

00:21:59,278 --> 00:22:03,269

going to get any better and chiropractic

505

00:22:01,470 --> 00:22:07,710

especially for a spinal injury I'm just

506

00:22:03,269 --> 00:22:09,089

floored by be wow the herniated disk and

507

00:22:07,710 --> 00:22:12,298

mash on it a bit that sounds like a

508

00:22:09,089 --> 00:22:13,769

fantastic idea it sounds to me like if I

509

00:22:12,298 --> 00:22:17,250

can offer a little bit of advice you

510

00:22:13,769 --> 00:22:19,798

should note these stories along the way

511

00:22:17,250 --> 00:22:21,869

in about 20 20 30 years or so I think

512

00:22:19,798 --> 00:22:25,048

we'll make a cracking book actually The

513

00:22:21,869 --> 00:22:29,308

Adventures of the skeptical vet yeah I'm

514  
00:22:25,048 --> 00:22:31,558  
if I'm still here in 20 or 30 years well

515  
00:22:29,308 --> 00:22:33,898  
I certainly hope you are Julie letter

516  
00:22:31,558 --> 00:22:37,528  
and I hope for the sake of the animals

517  
00:22:33,898 --> 00:22:39,569  
where you are you are to thank you once

518  
00:22:37,528 --> 00:22:42,058  
again for chatting to us it's really fun

519  
00:22:39,569 --> 00:22:44,189  
to catch up with you every roughly every

520  
00:22:42,058 --> 00:22:47,778  
year and find out whether you are in

521  
00:22:44,190 --> 00:22:53,090  
your career and your your adventures so

522  
00:22:47,778 --> 00:22:53,089  
thank you very much once again thank you

523  
00:23:05,220 --> 00:23:11,200  
the skeptic magazine the journal from

524  
00:23:08,079 --> 00:23:13,419  
Australian skeptics subscribe online to

525  
00:23:11,200 --> 00:23:18,730  
the world's second oldest skeptical

526  
00:23:13,420 --> 00:23:21,940  
magazine visit w WC APA mau and click

527  
00:23:18,730 --> 00:23:26,319  
the publication's link you can also find

528  
00:23:21,940 --> 00:23:29,440  
their over 30 years of back issues free

529  
00:23:26,319 --> 00:23:38,049  
to download the skeptic magazine from

530  
00:23:29,440 --> 00:23:39,370  
Australian skeptics Brisbane skeptic

531  
00:23:38,049 --> 00:23:40,960  
society is proud to announce that

532  
00:23:39,369 --> 00:23:42,789  
Michael Marshall will be coming to

533  
00:23:40,960 --> 00:23:44,860  
brisbane on the first of December I

534  
00:23:42,789 --> 00:23:46,480  
can't wait to speak in Brisbane I really

535  
00:23:44,859 --> 00:23:47,500  
want to be showing people or take people

536  
00:23:46,480 --> 00:23:49,049  
through some of the stuff that I've been

537  
00:23:47,500 --> 00:23:51,369  
doing in skepticism some of the

538  
00:23:49,049 --> 00:23:52,930  
interestings with a weird story some of

539  
00:23:51,369 --> 00:23:55,419  
the funny stories and some of the quiet

540  
00:23:52,930 --> 00:23:56,860  
horrible things that you see when you

541  
00:23:55,420 --> 00:23:58,930  
get out there you investigate together

542

00:23:56,859 --> 00:24:00,879  
systems w if that gets sued assigned to

543  
00:23:58,930 --> 00:24:02,049  
because of firsthand so please come

544  
00:24:00,880 --> 00:24:03,640  
along to Brisbane I look forward to

545  
00:24:02,049 --> 00:24:06,069  
seeing everyone there we have a beer

546  
00:24:03,640 --> 00:24:08,680  
afterwards to come along to tumble shire

547  
00:24:06,069 --> 00:24:10,990  
hall starting at six o'clock for a talk

548  
00:24:08,680 --> 00:24:13,480  
by Michael Marshall and drinks up to it

549  
00:24:10,990 --> 00:24:16,140  
for more info go to Brisbane skeptics

550  
00:24:13,480 --> 00:24:16,140  
dot org

551  
00:24:19,179 --> 00:24:24,169  
welcome to a week in science from RI oz

552  
00:24:21,979 --> 00:24:27,139  
bring you the science you need to know

553  
00:24:24,169 --> 00:24:29,509  
it was one small step for an animal one

554  
00:24:27,138 --> 00:24:31,699  
giant leap for the animal kingdom but

555  
00:24:29,509 --> 00:24:33,889  
just how did the first vertebrates walk

556  
00:24:31,700 --> 00:24:36,499

onto land and breathe air for the first

557

00:24:33,888 --> 00:24:43,819

time it's time to take a closer look at

558

00:24:36,499 --> 00:24:45,829

our first steps to recent papers reveal

559

00:24:43,819 --> 00:24:48,259

key insights into how the first

560

00:24:45,829 --> 00:24:50,358

vertebrates walked onto land and took

561

00:24:48,259 --> 00:24:52,940

their first breath the mechanism that

562

00:24:50,358 --> 00:24:55,218

determines whether you have fish fins or

563

00:24:52,940 --> 00:24:57,588

walking limbs is the rate at which a

564

00:24:55,219 --> 00:25:00,048

couple of hox genes are expressed hox

565

00:24:57,588 --> 00:25:02,088

genes are like Orchestra conductors they

566

00:25:00,048 --> 00:25:04,729

regulate how a whole suite of other

567

00:25:02,088 --> 00:25:07,128

genes perform and changing its rate of

568

00:25:04,729 --> 00:25:09,409

expression can radically alter how an

569

00:25:07,128 --> 00:25:11,148

organism develops we learn more about

570

00:25:09,409 --> 00:25:13,759

limb building when developmental

571  
00:25:11,148 --> 00:25:17,058  
embryologists switch the hox genes from

572  
00:25:13,759 --> 00:25:19,338  
a fish to a mouse the fish Hawks gene

573  
00:25:17,058 --> 00:25:22,158  
could not produce fingers and toes in

574  
00:25:19,338 --> 00:25:24,259  
mice thus the genetic apparatus required

575  
00:25:22,159 --> 00:25:26,649  
to make fingers and toes must have

576  
00:25:24,259 --> 00:25:31,159  
evolved after walking limbs developed

577  
00:25:26,648 --> 00:25:33,138  
and we also now know how breathing

578  
00:25:31,159 --> 00:25:35,089  
developed for the first time and guess

579  
00:25:33,138 --> 00:25:37,488  
what we almost ended up breathing

580  
00:25:35,088 --> 00:25:40,428  
through our ears a team studied live

581  
00:25:37,489 --> 00:25:43,459  
Polly terrod fish from Africa these fish

582  
00:25:40,429 --> 00:25:46,249  
have a simple lung but no windpipe the

583  
00:25:43,459 --> 00:25:48,558  
team found that 93% of the air getting

584  
00:25:46,249 --> 00:25:51,379  
into the lung came through holes in the

585  
00:25:48,558 --> 00:25:53,658  
tops of the head called spiracles being

586  
00:25:51,378 --> 00:25:55,819  
surrounded by bone these structures are

587  
00:25:53,659 --> 00:25:57,979  
usually found in fossils of advanced

588  
00:25:55,819 --> 00:26:01,338  
fish and primitive walking vertebrates

589  
00:25:57,979 --> 00:26:03,319  
the tetrapods so now we can track how

590  
00:26:01,338 --> 00:26:06,288  
this early breathing mechanism developed

591  
00:26:03,319 --> 00:26:09,108  
in more advanced tetrapods like us the

592  
00:26:06,288 --> 00:26:13,829  
spiracles ended up becoming our ears and

593  
00:26:09,108 --> 00:26:16,239  
now for fast facts about walking on land

594  
00:26:13,829 --> 00:26:18,638  
while the standard body plan for

595  
00:26:16,239 --> 00:26:21,009  
tetrapods includes five fingers and toes

596  
00:26:18,638 --> 00:26:23,258  
at the ends of each limb some of the

597  
00:26:21,009 --> 00:26:25,749  
earliest land walkers had eight digits

598  
00:26:23,259 --> 00:26:27,669  
in recent years several fossil finds

599

00:26:25,749 --> 00:26:29,879  
have completed the picture of every

600  
00:26:27,669 --> 00:26:32,979  
conceivable intermediate stage between

601  
00:26:29,878 --> 00:26:34,988  
advanced fish and the first land walking

602  
00:26:32,979 --> 00:26:37,269  
vertebrates the Queensland lungfish

603  
00:26:34,989 --> 00:26:39,369  
while not an immediate ancestor tool and

604  
00:26:37,269 --> 00:26:41,618  
walking vertebrates provides a clear

605  
00:26:39,368 --> 00:26:44,108  
picture of how air-breathing evolved in

606  
00:26:41,618 --> 00:26:46,959  
fish before they walked onto the land

607  
00:26:44,108 --> 00:26:48,548  
and in case you're wondering Queensland

608  
00:26:46,960 --> 00:26:50,858  
lungfish are supposed to taste like a

609  
00:26:48,548 --> 00:26:53,618  
very oily salmon and they're covered in

610  
00:26:50,858 --> 00:26:55,449  
a thick sticky mucus I know that because

611  
00:26:53,618 --> 00:26:57,459  
I had to throw my shirt away after

612  
00:26:55,450 --> 00:27:00,009  
handling one of them that's it for this

613  
00:26:57,460 --> 00:27:02,229

week in science for more information on

614

00:27:00,009 --> 00:27:06,460

walking on land go to the RAS website

615

00:27:02,229 --> 00:27:10,298

are I aus ok you follow us on twitter at

616

00:27:06,460 --> 00:27:13,778

our iOS and like us on Facebook I'm Paul

617

00:27:10,298 --> 00:27:15,839

Willis and we'll catch you next week

618

00:27:13,778 --> 00:27:15,839

you

619

00:27:21,220 --> 00:27:26,660

but gasps yours is an award-winning

620

00:27:23,660 --> 00:27:29,540

weekly science show in French hosted by

621

00:27:26,660 --> 00:27:31,820

a bunch of crazy enthusiasts we are

622

00:27:29,539 --> 00:27:34,159

convinced that the greatest ideas in

623

00:27:31,819 --> 00:27:36,409

science are quite easy to grasp as long

624

00:27:34,160 --> 00:27:38,960

as they're presented with passion using

625

00:27:36,410 --> 00:27:41,120

a vocabulary common to all curious minds

626

00:27:38,960 --> 00:27:43,910

whatever their academic background if

627

00:27:41,119 --> 00:27:46,939

any you don't understand French yet oh

628  
00:27:43,910 --> 00:27:48,800  
it's never too late all our stories have

629  
00:27:46,940 --> 00:27:50,570  
a written transcript on the website and

630  
00:27:48,799 --> 00:27:52,730  
people from all around the world are

631  
00:27:50,569 --> 00:27:55,819  
using our content to learn Malia's

632  
00:27:52,730 --> 00:27:58,250  
language our topics range from 0 to

633  
00:27:55,819 --> 00:28:00,619  
infinity from evolution to artificial

634  
00:27:58,250 --> 00:28:03,259  
life from electromagnetism to the

635  
00:28:00,619 --> 00:28:06,469  
science of introverts we just love

636  
00:28:03,259 --> 00:28:09,259  
mathematics science critical thinking so

637  
00:28:06,470 --> 00:28:10,970  
do you want to join you can subscribe to

638  
00:28:09,259 --> 00:28:13,460  
the podcast for free from our website

639  
00:28:10,970 --> 00:28:16,309  
podcast science thoughts FM that's in

640  
00:28:13,460 --> 00:28:18,740  
one word you also find us on itunes and

641  
00:28:16,309 --> 00:28:23,230  
soundcloud see you soon hopefully at

642  
00:28:18,740 --> 00:28:23,230  
lulu's area at the others or pedestrians

643  
00:28:34,539 --> 00:28:46,039  
what we want is some more evidence

644  
00:28:37,369 --> 00:28:49,239  
please is Joe alabaster hello this is

645  
00:28:46,039 --> 00:28:49,240  
Joe alabaster

646  
00:28:51,288 --> 00:28:57,509  
in news from New Zealand a Green Party

647  
00:28:54,000 --> 00:29:00,419  
MP has faced consequences after signing

648  
00:28:57,509 --> 00:29:02,369  
and sharing on social media a change org

649  
00:29:00,419 --> 00:29:04,559  
petition calling for the World Health

650  
00:29:02,369 --> 00:29:07,589  
Organization to test and distribute

651  
00:29:04,558 --> 00:29:11,460  
homeopathy to contain outbreaks of Ebola

652  
00:29:07,589 --> 00:29:14,129  
the petitions started by Australia's own

653  
00:29:11,460 --> 00:29:16,409  
franche field of homeopathy plus winner

654  
00:29:14,130 --> 00:29:18,570  
of the Australian skeptics 2012 bents

655  
00:29:16,409 --> 00:29:22,110  
bren award addresses the world health

656

00:29:18,569 --> 00:29:24,960  
organization as titled quote end the

657  
00:29:22,109 --> 00:29:27,028  
suffering of the Ebola crisis test and

658  
00:29:24,960 --> 00:29:29,220  
distribute homeopathy as quickly as

659  
00:29:27,028 --> 00:29:34,798  
possible to contain the outbreaks and

660  
00:29:29,220 --> 00:29:36,778  
quote it begins quote homeopathy has a

661  
00:29:34,798 --> 00:29:39,408  
proven track record of treating and

662  
00:29:36,778 --> 00:29:42,028  
preventing serious epidemic diseases

663  
00:29:39,409 --> 00:29:45,270  
it's used by governments for dengue

664  
00:29:42,028 --> 00:29:47,839  
fever leptospirosis epidemic fever

665  
00:29:45,269 --> 00:29:51,240  
malaria and Japanese encephalitis

666  
00:29:47,839 --> 00:29:54,329  
epidemics and historically for other

667  
00:29:51,240 --> 00:29:56,730  
serious contagious diseases the

668  
00:29:54,329 --> 00:29:58,798  
appropriate homeopathic medicine remedy

669  
00:29:56,730 --> 00:30:03,390  
is likely to be just as effective

670  
00:29:58,798 --> 00:30:07,859

against the Ebola virus end quote well

671

00:30:03,390 --> 00:30:09,899

yes just as effective as the NHMRC s

672

00:30:07,859 --> 00:30:12,740

review of homeopathy found earlier this

673

00:30:09,898 --> 00:30:17,579

year homeopathy is not effective at all

674

00:30:12,740 --> 00:30:19,519

still some continue to believe Stefan

675

00:30:17,579 --> 00:30:22,079

browning New Zealand Green Party MP

676

00:30:19,519 --> 00:30:24,509

signed the change org petition last

677

00:30:22,079 --> 00:30:27,990

month and shared it on his Facebook page

678

00:30:24,509 --> 00:30:29,908

since deleted his green party colleagues

679

00:30:27,990 --> 00:30:33,179

and other New Zealand parliamentarians

680

00:30:29,909 --> 00:30:35,640

were not impressed in a public statement

681

00:30:33,179 --> 00:30:37,740

Prime Minister John Key declared the

682

00:30:35,640 --> 00:30:41,990

idea of using homeopathy to treat Ebola

683

00:30:37,740 --> 00:30:46,288

virus as quote barking mad end quote

684

00:30:41,990 --> 00:30:48,509

quote let's be honest this is a serious

685  
00:30:46,288 --> 00:30:50,308  
global issue and if he really thinks

686  
00:30:48,509 --> 00:30:54,509  
that's the answer I'd love to see the

687  
00:30:50,308 --> 00:30:57,779  
medical research end quote speaking to

688  
00:30:54,509 --> 00:30:59,940  
the media browning stated that quote it

689  
00:30:57,779 --> 00:31:02,339  
was probably a pretty unwise thing it

690  
00:30:59,940 --> 00:31:03,269  
was pretty late at night and I signed it

691  
00:31:02,339 --> 00:31:06,659  
because I'm not a

692  
00:31:03,269 --> 00:31:08,190  
opposed to homeopathy and quote he said

693  
00:31:06,660 --> 00:31:09,960  
that he did not intend to post it to

694  
00:31:08,190 --> 00:31:12,960  
Facebook and he wasn't about to promote

695  
00:31:09,960 --> 00:31:15,090  
it Browning's green party colleagues

696  
00:31:12,960 --> 00:31:17,579  
however decided to condemn browning

697  
00:31:15,089 --> 00:31:20,819  
support of the petition with Green Party

698  
00:31:17,579 --> 00:31:23,159  
co-leader Metiria Turei announcing that

699  
00:31:20,819 --> 00:31:27,419  
the party supports quote evidence-based

700  
00:31:23,160 --> 00:31:29,340  
health policy and quote quote we wish to

701  
00:31:27,420 --> 00:31:31,320  
be very clear that we support the use of

702  
00:31:29,339 --> 00:31:33,990  
science and evidence when it comes to

703  
00:31:31,319 --> 00:31:37,740  
public health policy and quote said mr.

704  
00:31:33,990 --> 00:31:40,289  
a quote individuals can make choices

705  
00:31:37,740 --> 00:31:42,390  
about their own health treatments but it

706  
00:31:40,289 --> 00:31:44,730  
is critical public health decisions are

707  
00:31:42,390 --> 00:31:46,350  
evidence-based and the consumers have

708  
00:31:44,730 --> 00:31:48,809  
appropriate evidence-based information

709  
00:31:46,349 --> 00:31:52,740  
of our alternative health products and

710  
00:31:48,809 --> 00:31:54,569  
quote the Green Party caucus met and

711  
00:31:52,740 --> 00:31:57,420  
decided to remove the natural health

712  
00:31:54,569 --> 00:32:00,240  
products portfolio from browning merging

713

00:31:57,420 --> 00:32:01,590  
it into the health portfolio browning

714  
00:32:00,240 --> 00:32:04,620  
said he can live with losing the

715  
00:32:01,589 --> 00:32:06,629  
portfolio quote I've got some other

716  
00:32:04,619 --> 00:32:09,029  
really gutsy portfolios and I'll be

717  
00:32:06,630 --> 00:32:13,380  
working very well on them and quote he

718  
00:32:09,029 --> 00:32:16,379  
said Browning's other portfolios include

719  
00:32:13,380 --> 00:32:19,650  
agriculture biosecurity and food safety

720  
00:32:16,380 --> 00:32:21,690  
a quick scan of his facebook page showed

721  
00:32:19,650 --> 00:32:23,850  
a post in which he encouraged people to

722  
00:32:21,690 --> 00:32:26,100  
attend the Food Matters conference and

723  
00:32:23,849 --> 00:32:29,279  
tour in Wellington which featured

724  
00:32:26,099 --> 00:32:32,309  
speakers such as Vandana Shiva and Jilly

725  
00:32:29,279 --> 00:32:35,430  
Eric seralini who avere mentally aunty

726  
00:32:32,309 --> 00:32:37,049  
genetic engineering in fact many posts

727  
00:32:35,430 --> 00:32:41,640

on browning's Facebook wall have a

728

00:32:37,049 --> 00:32:45,299

similar anti-gmo tone dr. grant Jacobs

729

00:32:41,640 --> 00:32:47,340

on site blog Co door NZ points out that

730

00:32:45,299 --> 00:32:50,220

branning support of homeopathy for Ebola

731

00:32:47,339 --> 00:32:52,889

quote is not an idle blunder but an

732

00:32:50,220 --> 00:32:54,569

example of his thinking this line of

733

00:32:52,890 --> 00:32:57,509

thinking does not suit any portfolio

734

00:32:54,569 --> 00:33:01,769

with substantial science content some

735

00:32:57,509 --> 00:33:04,410

would say any portfolio and quote while

736

00:33:01,769 --> 00:33:06,539

homeopathy for Ebola is an absurd notion

737

00:33:04,410 --> 00:33:08,730

too much of the general public perhaps

738

00:33:06,539 --> 00:33:11,700

people are not so FA with the science of

739

00:33:08,730 --> 00:33:13,440

genetic engineering the media gave us a

740

00:33:11,700 --> 00:33:16,289

bit of a giggle at brownings gaffe with

741

00:33:13,440 --> 00:33:17,048

homeopathy which is a good thing much of

742  
00:33:16,289 --> 00:33:18,489  
our society

743  
00:33:17,048 --> 00:33:20,668  
you now understands that homeopathy

744  
00:33:18,489 --> 00:33:23,440  
isn't something to be taken seriously

745  
00:33:20,669 --> 00:33:25,509  
but with the media and public react the

746  
00:33:23,440 --> 00:33:28,210  
same way if a politician support of

747  
00:33:25,509 --> 00:33:31,960  
séralini the chat with the flawed GM fed

748  
00:33:28,210 --> 00:33:33,429  
rat studies was publicized as such I'd

749  
00:33:31,960 --> 00:33:35,379  
like to stress the importance of

750  
00:33:33,429 --> 00:33:38,619  
evidence-based thinking and policy

751  
00:33:35,378 --> 00:33:40,269  
across the board as for politicians who

752  
00:33:38,618 --> 00:33:42,819  
note that they're not scientists are not

753  
00:33:40,269 --> 00:33:45,609  
well informed on technical matters get

754  
00:33:42,819 --> 00:33:47,908  
informed you have access to the best and

755  
00:33:45,609 --> 00:33:52,798  
brightest experts on any given subject

756  
00:33:47,909 --> 00:33:52,799  
don't be duped by Studio science and woo

757  
00:33:58,589 --> 00:34:08,500  
3 30 minute video fear of Islamic law be

758  
00:34:06,220 --> 00:34:10,329  
so skeptical museum was known as a stray

759  
00:34:08,500 --> 00:34:12,010  
cat recorded cars dead we need a litmus

760  
00:34:10,329 --> 00:34:14,470  
clear it algebra grampa tsuchikage

761  
00:34:12,010 --> 00:34:16,540  
podcast Petrova hooded garden engine but

762  
00:34:14,469 --> 00:34:18,848  
customs White's escaped aside a petrol

763  
00:34:16,539 --> 00:34:23,648  
bomb or still not initiated st at the

764  
00:34:18,849 --> 00:34:25,240  
web / skeptics society Raj guru hey

765  
00:34:23,648 --> 00:34:27,308  
everybody my name is carol and i'm the

766  
00:34:25,239 --> 00:34:28,689  
founder of skeptics society russia come

767  
00:34:27,309 --> 00:34:30,909  
visit us in moscow and our bi-weekly

768  
00:34:28,690 --> 00:34:32,980  
meetings and also listen to our weekly

769  
00:34:30,909 --> 00:34:34,510  
podcast which is called skeptic and the

770

00:34:32,980 --> 00:34:38,128  
site where you can find all that is

771  
00:34:34,510 --> 00:34:38,129  
skeptics society that are you

772  
00:34:56,128 --> 00:35:00,400  
well the mail is still not good from

773  
00:34:59,018 --> 00:35:02,468  
Richard Saunders and his couch of

774  
00:35:00,400 --> 00:35:04,298  
arrogance unfortunately he can't come

775  
00:35:02,469 --> 00:35:06,548  
off it he's still not well he can't be

776  
00:35:04,298 --> 00:35:08,380  
heard he can't be heard except only by

777  
00:35:06,548 --> 00:35:10,358  
dogs and that's not so good for a

778  
00:35:08,380 --> 00:35:12,130  
podcast really they the pores just can't

779  
00:35:10,358 --> 00:35:14,558  
work the phone it's the whole opposable

780  
00:35:12,130 --> 00:35:16,420  
thumb thing see I did read that book but

781  
00:35:14,559 --> 00:35:19,930  
for now on it's Maynard signing off from

782  
00:35:16,420 --> 00:35:21,489  
Maynard com a you won't come they have

783  
00:35:19,929 --> 00:35:23,169  
listened to one of my podcast they

784  
00:35:21,489 --> 00:35:30,249

aren't as good as this but they do fill

785

00:35:23,170 --> 00:35:33,519  
up about an hour by you've been

786

00:35:30,248 --> 00:35:38,048  
listening to the skeptic zone visit our

787

00:35:33,518 --> 00:35:40,538  
website at [www.skeptics.org](http://www.skeptics.org) on TV for

788

00:35:38,048 --> 00:35:43,199  
comments contacts and extra video

789

00:35:40,539 --> 00:35:43,200  
reports

790

00:35:46,250 --> 00:36:01,070  
oh and before you go the 1980 penthouse

791

00:35:56,119 --> 00:36:03,079  
pet of the year won a triumph tr7 or tr8

792

00:36:01,070 --> 00:36:06,019  
pretty much a tr7 whether the ad engine

793

00:36:03,079 --> 00:36:08,269  
put in it from rover so it was kind of

794

00:36:06,019 --> 00:36:10,730  
like from the Leyland factory so I would

795

00:36:08,269 --> 00:36:12,650  
suggest that the 1980s pit Australian

796

00:36:10,730 --> 00:36:16,300  
pill of the year is still going but the

797

00:36:12,650 --> 00:36:16,300  
car sadly is not