



1
00:00:06,880 --> 00:00:03,470
ready in here and see what happens when

2
00:00:10,669 --> 00:00:06,890
we stimulate this one acupuncture point

3
00:00:12,860 --> 00:00:10,679
this is not to scale but the time is to

4
00:00:14,660 --> 00:00:12,870
scale so what happens is that I'm going

5
00:00:16,250 --> 00:00:14,670
to stimulate this acupuncture point

6
00:00:18,080 --> 00:00:16,260
here's what the accurate points are

7
00:00:19,670 --> 00:00:18,090
points acupuncture points look like

8
00:00:21,679 --> 00:00:19,680
along the Meridian you can see there are

9
00:00:23,660 --> 00:00:21,689
different sizes and I'm going to

10
00:00:26,570 --> 00:00:23,670
stimulate this particular acupuncture

11
00:00:29,830 --> 00:00:26,580
point down here and let's see what

12
00:00:35,420 --> 00:00:32,359
okay we've stimulated that acupuncture

13
00:00:37,700 --> 00:00:35,430

point and now the information at that

14

00:00:39,979 --> 00:00:37,710

stimulation is moving on Meridian and

15

00:00:42,770 --> 00:00:39,989

now stimulates this acupuncture point

16

00:00:44,779 --> 00:00:42,780

the information continues to move along

17

00:00:48,139 --> 00:00:44,789

the Meridian smoothing actually about

18

00:00:50,630 --> 00:00:48,149

five to ten centimeters per second it's

19

00:00:52,340 --> 00:00:50,640

a very slow moving signal along the

20

00:00:55,549 --> 00:00:52,350

Meridian continues on this points a

21

00:00:58,310 --> 00:00:55,559

little further along and now this

22

00:01:00,799 --> 00:00:58,320

acupuncture point is even further away

23

00:01:02,569 --> 00:01:00,809

along the same Meridian takes it a

24

00:01:05,679 --> 00:01:02,579

little bit longer to get there that the

25

00:01:11,020 --> 00:01:05,689

time here is correct though and

26
00:01:16,420 --> 00:01:14,840
so we've produced a real-time images of

27
00:01:18,679 --> 00:01:16,430
acupuncture points during simulation

28
00:01:20,660 --> 00:01:18,689
although the data is collected during

29
00:01:23,210 --> 00:01:20,670
heal time reduce the images that you see

30
00:01:25,429 --> 00:01:23,220
later when stimulated the acupuncture

31
00:01:28,460 --> 00:01:25,439
twists itself around the needle the

32
00:01:30,170 --> 00:01:28,470
simulation process is communicated to

33
00:01:32,149 --> 00:01:30,180
other acupoints along the same Meridian

34
00:01:33,499 --> 00:01:32,159
it speeds depends upon the individual

35
00:01:36,620 --> 00:01:33,509
but it goes from five to ten centimeters

36
00:01:38,539 --> 00:01:36,630
per second it turns out that a number of

37
00:01:41,120 --> 00:01:38,549
the subjects that we've used are very

38
00:01:43,700 --> 00:01:41,130

very sensitive to this process or the

39

00:01:46,219 --> 00:01:43,710

flow of Chi and their description of the

40

00:01:48,740 --> 00:01:46,229

flow of Chi up their leg of energy is

41

00:01:52,100 --> 00:01:48,750

precisely what we measure and the right

42

00:01:53,179 --> 00:01:52,110

that we measure obviously

43

00:01:54,830 --> 00:01:53,189

well maybe not obviously but the

44

00:01:57,380 --> 00:01:54,840

mechanisms or the nature of the

45

00:01:59,660 --> 00:01:57,390

communication process is certainly

46

00:02:02,420 --> 00:01:59,670

unknown and something we are trying to

47

00:02:06,620 --> 00:02:02,430

investigate at this point in time now

48

00:02:08,869 --> 00:02:06,630

we're using fMRI to produce signals from

49

00:02:10,880 --> 00:02:08,879

acupuncture stimulation and as I

50

00:02:12,260 --> 00:02:10,890

indicated earlier the classical fMRI

51
00:02:13,700 --> 00:02:12,270
study is to

52
00:02:15,320 --> 00:02:13,710
the time between flashing lights and

53
00:02:16,070 --> 00:02:15,330
brain activity which takes about a

54
00:02:18,740 --> 00:02:16,080
hundred and eighty two hundred

55
00:02:20,360 --> 00:02:18,750
milliseconds but we actually let's use

56
00:02:22,310 --> 00:02:20,370
ultrasound actually stimulate the

57
00:02:24,290 --> 00:02:22,320
acupuncture point because it allows us

58
00:02:26,380 --> 00:02:24,300
to make precise measurements of time

59
00:02:29,600 --> 00:02:26,390
between stimulation and brain activity

60
00:02:31,100 --> 00:02:29,610
it turns out that when you do this and

61
00:02:33,110 --> 00:02:31,110
you begin looking at what happens in the

62
00:02:35,330 --> 00:02:33,120
visual cortex of the brain you see a

63
00:02:37,460 --> 00:02:35,340

signal that appears to be there almost

64

00:02:39,410 --> 00:02:37,470

instantaneously less than or equal to

65

00:02:41,120 --> 00:02:39,420

about eight tenths of a millisecond this

66

00:02:43,370 --> 00:02:41,130

is actually two orders of magnitude

67

00:02:44,870 --> 00:02:43,380

faster than any known process which

68

00:02:47,030 --> 00:02:44,880

actually drives my neuroscience

69

00:02:48,290 --> 00:02:47,040

colleagues absolutely nuts but if you

70

00:02:50,960 --> 00:02:48,300

turns out if you stimulate an

71

00:02:52,670 --> 00:02:50,970

acupuncture point you stimulate a region

72

00:02:54,230 --> 00:02:52,680

that's not an acupuncture point you

73

00:02:56,300 --> 00:02:54,240

don't see this when you stimulate the

74

00:02:57,860 --> 00:02:56,310

acupuncture point you see it simulate a

75

00:02:59,540 --> 00:02:57,870

non acupuncture point you don't see it

76
00:03:03,400 --> 00:02:59,550
seem to let the acupuncture point you do

77
00:03:05,300 --> 00:03:03,410
so you tell me what's the problem and

78
00:03:07,370 --> 00:03:05,310
hopefully someone can also explain

79
00:03:09,890 --> 00:03:07,380
what's going on it's certainly

80
00:03:11,240 --> 00:03:09,900
consistent with subtle energy fields or

81
00:03:12,470 --> 00:03:11,250
perhaps the acupuncture point is

82
00:03:14,600 --> 00:03:12,480
generating a pulse of electromagnetic

83
00:03:18,500 --> 00:03:14,610
energy that's picked up an acupuncture

84
00:03:20,300 --> 00:03:18,510
one in the brain the the process is is

85
00:03:21,890 --> 00:03:20,310
still very very much under studying an

86
00:03:24,500 --> 00:03:21,900
investigation

87
00:03:27,650 --> 00:03:24,510
well we've sort of delineated three

88
00:03:29,210 --> 00:03:27,660

different pathways by which the signals

89

00:03:31,640 --> 00:03:29,220

of stimulation actually get to the brain

90

00:03:35,990 --> 00:03:31,650

there's this very very fast signal could

91

00:03:38,330 --> 00:03:36,000

be instantaneous there is activity that

92

00:03:39,890 --> 00:03:38,340

you see in the visual cortex about a

93

00:03:42,260 --> 00:03:39,900

hundred and eighty 200 milliseconds

94

00:03:44,960 --> 00:03:42,270

later this is clearly along a nerve

95

00:03:47,320 --> 00:03:44,970

pathway and then there's this very slow

96

00:03:51,170 --> 00:03:47,330

signal that moves along the meridians

97

00:03:53,030 --> 00:03:51,180

taking many seconds to get to the to the

98

00:03:56,300 --> 00:03:53,040

brain center so what you see in AFM our

99

00:03:59,570 --> 00:03:56,310

image is an initial pulse of activity

100

00:04:01,840 --> 00:03:59,580

then additional activity at this time

101
00:04:06,290 --> 00:04:01,850
frame and in much later additional

102
00:04:08,540 --> 00:04:06,300
activities our studies of acupuncture is

103
00:04:10,130 --> 00:04:08,550
still in a very early stage there are

104
00:04:12,229 --> 00:04:10,140
many challenging and fundamental

105
00:04:14,300 --> 00:04:12,239
problems remain to be solved however I

106
00:04:16,310 --> 00:04:14,310
really do think that the results could

107
00:04:17,900 --> 00:04:16,320
potentially fundamentally change not

108
00:04:20,260 --> 00:04:17,910
only the practice of medicine delivery

109
00:04:22,880 --> 00:04:20,270
of healthcare system but we may also

110
00:04:23,740 --> 00:04:22,890
shake up the standard scientific

111
00:04:35,340 --> 00:04:23,750
paradigm just

112
00:04:39,720 --> 00:04:35,350
but thank you very much how exciting I

113
00:04:42,940 --> 00:04:39,730

promise this lady from the last session

114

00:04:46,750 --> 00:04:42,950

hi I'm Baris Sims and this is a question

115

00:04:48,840 --> 00:04:46,760

leftover from your last session I'm

116

00:04:51,190 --> 00:04:48,850

really interested in your use of

117

00:04:53,110 --> 00:04:51,200

cleaning the laboratories and the

118

00:04:54,820 --> 00:04:53,120

healing and the housecleaning with

119

00:04:56,200 --> 00:04:54,830

colors and would like to know more about

120

00:04:59,200 --> 00:04:56,210

that

121

00:05:01,690 --> 00:04:59,210

are there specific reasons why certain

122

00:05:04,120 --> 00:05:01,700

colors might be selected and what with

123

00:05:07,450 --> 00:05:04,130

their effects being is there a certain

124

00:05:12,610 --> 00:05:07,460

color that's shown in a dirty lab versus

125

00:05:13,750 --> 00:05:12,620

a clean lab well there are there are a

126

00:05:16,570 --> 00:05:13,760

number there are a number of books about

127

00:05:18,550 --> 00:05:16,580

you know I'm I have amateur status as a

128

00:05:21,850 --> 00:05:18,560

pranic healer so are are as a healer in

129

00:05:25,060 --> 00:05:21,860

general but there are a number of books

130

00:05:27,280 --> 00:05:25,070

available on on on healing and in pranic

131

00:05:28,750 --> 00:05:27,290

healing in particular in fact there's a

132

00:05:32,100 --> 00:05:28,760

marvelous book called your hands can

133

00:05:34,960 --> 00:05:32,110

heal you that's written by Stephen Coe

134

00:05:37,690 --> 00:05:34,970

that's I think it's quite a wonderful

135

00:05:39,430 --> 00:05:37,700

book and it turns out we have a superb

136

00:05:40,870 --> 00:05:39,440

rumba chronic healer with us today that

137

00:05:44,350 --> 00:05:40,880

I didn't know was gonna be here Mary

138

00:05:46,570 --> 00:05:44,360

Clark and you why don't you you can chat

139

00:05:48,190 --> 00:05:46,580

with her later because she knows about

140

00:05:50,409 --> 00:05:48,200

everything about pranic healing if one

141

00:05:55,360 --> 00:05:50,419

should ever know how did I set you up

142

00:05:58,420 --> 00:05:55,370

okay and she lives in San Diego I'll put

143

00:06:01,390 --> 00:05:58,430

in a plug for you she's in she's in San

144

00:06:05,020 --> 00:06:01,400

Diego and she she actually does pranic

145

00:06:06,130 --> 00:06:05,030

healing in her practice and is quite

146

00:06:09,700 --> 00:06:06,140

active in the pranic healing community

147

00:06:13,210 --> 00:06:09,710

and is also a very nice person

148

00:06:15,159 --> 00:06:13,220

so Joey Karl med would if I have a

149

00:06:18,670 --> 00:06:15,169

question regarding the stimulation of

150

00:06:21,340 --> 00:06:18,680

acupuncture point where you the one's

151
00:06:23,950 --> 00:06:21,350
further down the Meridian adopted the

152
00:06:27,490 --> 00:06:23,960
same shape did they seem to be aligned

153
00:06:29,290 --> 00:06:27,500
on a like a north-south axis is is that

154
00:06:31,810 --> 00:06:29,300
the alignment type of thing you know no

155
00:06:35,360 --> 00:06:31,820
no there's barely that metaphorically

156
00:06:37,129 --> 00:06:35,370
the north-south but I mean in a way that

157
00:06:40,040 --> 00:06:37,139
one could describe his north-south it

158
00:06:41,300 --> 00:06:40,050
was no the the acupuncture points the

159
00:06:44,030 --> 00:06:41,310
top of the acupuncture points were

160
00:06:45,260 --> 00:06:44,040
facing the skin so if you come up a leg

161
00:06:53,689 --> 00:06:45,270
they're all sort of facing in the same

162
00:06:56,360 --> 00:06:53,699
direction up the leg okay hi no no I I

163
00:06:57,890 --> 00:06:56,370

don't know that's the way that's the way

164

00:07:00,439 --> 00:06:57,900

they are I you know what makes them that

165

00:07:03,110 --> 00:07:00,449

way I'm not sure Mike Wilson how long

166

00:07:08,570 --> 00:07:03,120

does the acupuncture stay stimulated

167

00:07:10,340 --> 00:07:08,580

after it's been stimulated I wish I had

168

00:07:15,020 --> 00:07:10,350

a good answer for you that it depends on

169

00:07:16,760 --> 00:07:15,030

the level of stimulation you do if you

170

00:07:19,159 --> 00:07:16,770

continually stimulate the acupuncture

171

00:07:20,990 --> 00:07:19,169

points they seem to be stimulated for a

172

00:07:22,670 --> 00:07:21,000

longer period of time but quite honestly

173

00:07:24,170 --> 00:07:22,680

that's not something that we've really

174

00:07:27,110 --> 00:07:24,180

looked at carefully we have some sort of

175

00:07:28,520 --> 00:07:27,120

anecdotal data on that but I really

176

00:07:32,740 --> 00:07:28,530

wouldn't be able to answer the question

177

00:07:35,120 --> 00:07:32,750

very carefully I'm Darryl ahem

178

00:07:37,430 --> 00:07:35,130

absolutely amazing work these last three

179

00:07:39,920 --> 00:07:37,440

talks have just blown me away the

180

00:07:42,950 --> 00:07:39,930

question I have is what this tells us

181

00:07:45,580 --> 00:07:42,960

about replicability in other labs

182

00:07:48,020 --> 00:07:45,590

especially hostile labs toward the SCI

183

00:07:51,440 --> 00:07:48,030

condition but I know it's better that

184

00:07:54,050 --> 00:07:51,450

you're that you're of publishing in sort

185

00:07:56,060 --> 00:07:54,060

of preaching to the choir publications

186

00:07:58,159 --> 00:07:56,070

and we want to change the standard

187

00:07:59,540 --> 00:07:58,169

scientific paradigm I'm wondering with

188

00:08:01,940 --> 00:07:59,550

the quality of these studies that I've

189

00:08:04,339 --> 00:08:01,950

observed where have you tried to publish

190

00:08:07,100 --> 00:08:04,349

and what were their reasons for not

191

00:08:11,270 --> 00:08:07,110

publishing well that's an interesting

192

00:08:13,310 --> 00:08:11,280

story let me let me talk to you let me

193

00:08:14,960 --> 00:08:13,320

let me mention let's forget about pranic

194

00:08:16,520 --> 00:08:14,970

healing that's just too weird but let's

195

00:08:18,650 --> 00:08:16,530

talk about the acupuncture study okay

196

00:08:21,770 --> 00:08:18,660

when we did this acupuncture study the

197

00:08:23,600 --> 00:08:21,780

initial one back in 96 97 with the

198

00:08:26,810 --> 00:08:23,610

images it was the first study that had

199

00:08:28,430 --> 00:08:26,820

ever been done where that showed a

200

00:08:29,960 --> 00:08:28,440

direct relationship between the

201
00:08:34,130 --> 00:08:29,970
stimulation of an acupuncture point in

202
00:08:36,260 --> 00:08:34,140
activity in the in the brain and I had

203
00:08:37,790 --> 00:08:36,270
already pre-selected the images that I

204
00:08:40,519 --> 00:08:37,800
knew were going to be in the first cup

205
00:08:41,870 --> 00:08:40,529
on the front cover of science and you

206
00:08:44,810 --> 00:08:41,880
know and so we wrote this paper for

207
00:08:46,400 --> 00:08:44,820
science we submitted it we didn't get a

208
00:08:49,009 --> 00:08:46,410
response

209
00:08:52,639 --> 00:08:49,019
and finally after a while we called the

210
00:08:55,009 --> 00:08:52,649
the editor in Washington and one of the

211
00:08:58,550 --> 00:08:55,019
one of the staff members basically said

212
00:09:01,129 --> 00:08:58,560
oh you submitted that paper we don't

213
00:09:03,740 --> 00:09:01,139

review that sort of stuff so we could

214

00:09:04,550 --> 00:09:03,750

even get a review all right now the

215

00:09:07,100 --> 00:09:04,560

story goes on

216

00:09:10,819 --> 00:09:07,110

we then submitted the manuscript to

217

00:09:12,530 --> 00:09:10,829

nature and now there are three editors

218

00:09:14,030 --> 00:09:12,540

of nature there's one in London there's

219

00:09:15,800 --> 00:09:14,040

one in Washington there's one in Tokyo

220

00:09:17,420 --> 00:09:15,810

so we thought well we might have a

221

00:09:20,869 --> 00:09:17,430

better response if we submitted this to

222

00:09:22,069 --> 00:09:20,879

Tokyo we did and the editor in Tokyo did

223

00:09:23,360 --> 00:09:22,079

actually read the paper and thought it

224

00:09:27,980 --> 00:09:23,370

was interesting but was extremely

225

00:09:30,470 --> 00:09:27,990

uncomfortable publishing this he decided

226

00:09:36,079 --> 00:09:30,480

that he would consider it if we could

227

00:09:40,670 --> 00:09:36,089

get a of outside reviewers of our choice

228

00:09:43,009 --> 00:09:40,680

that would write letters about it we had

229

00:09:45,650 --> 00:09:43,019

five Nobel Prize winners in the

230

00:09:48,530 --> 00:09:45,660

neurosciences that wrote five raved

231

00:09:50,780 --> 00:09:48,540

letters about the manuscript and he

232

00:09:54,499 --> 00:09:50,790

still decided that it he just couldn't

233

00:09:56,600 --> 00:09:54,509

publish this in nature all five of the

234

00:09:58,639 --> 00:09:56,610

members the Nobel Prize winners were