



ABSciCON 2017

MESA, ARIZONA

1
00:00:12,250 --> 00:00:06,150

you

2
00:00:19,240 --> 00:00:14,970

[Music]

3
00:00:21,790 --> 00:00:19,250

okay good morning so my name is marina

4
00:00:24,700 --> 00:00:21,800

Walter Antonio and I'm from Mayo Clinic

5
00:00:28,089 --> 00:00:24,710

and this is a special session to really

6
00:00:30,340 --> 00:00:28,099

honor and pay tribute to someone that is

7
00:00:33,729 --> 00:00:30,350

very special to the entire astrobiology

8
00:00:35,560 --> 00:00:33,739

community and is particularly beloved by

9
00:00:38,170 --> 00:00:35,570

the early career astrobiologists and

10
00:00:41,110 --> 00:00:38,180

those that still like to think of

11
00:00:43,390 --> 00:00:41,120

themselves as such and and of course I'm

12
00:00:50,500 --> 00:00:43,400

talking about Carl Pilcher who is right

13
00:00:55,090 --> 00:00:50,510

there hang on hang on hang on

14

00:00:58,560 --> 00:00:55,100

so Carl as you know has retired recently

15

00:01:01,600 --> 00:00:58,570

from his position as an AI director

16

00:01:06,639 --> 00:01:01,610

where he was a kind and very caring a

17

00:01:10,139 --> 00:01:06,649

mentor to an inspiring leader to many

18

00:01:14,200 --> 00:01:10,149

many young minds for over a decade and

19

00:01:17,380 --> 00:01:14,210

continues to be such and you know I

20

00:01:19,750 --> 00:01:17,390

could go on for hours on just why that

21

00:01:22,060 --> 00:01:19,760

is but I really would just highlight one

22

00:01:23,920 --> 00:01:22,070

aspect of it and that is that he really

23

00:01:26,289 --> 00:01:23,930

has pioneered the concept of

24

00:01:28,660 --> 00:01:26,299

interdisciplinarity and what I mean by

25

00:01:31,060 --> 00:01:28,670

that is not like the interdisciplinarity

26

00:01:32,800 --> 00:01:31,070

that many of us think as you know at

27

00:01:34,300 --> 00:01:32,810

faculty level where you call up your

28

00:01:35,859 --> 00:01:34,310

colleague from another field that has

29

00:01:37,570 --> 00:01:35,869

some cool gadget that will look good on

30

00:01:39,219 --> 00:01:37,580

your grant that's not the type of

31

00:01:39,609 --> 00:01:39,229

interdisciplinarity that I'm talking

32

00:01:41,800 --> 00:01:39,619

about

33

00:01:43,539 --> 00:01:41,810

he really pioneered the

34

00:01:45,429 --> 00:01:43,549

interdisciplinary at this thought level

35

00:01:47,319 --> 00:01:45,439

so he basically picked us as

36

00:01:49,510 --> 00:01:47,329

undergraduates and graduate students put

37

00:01:51,490 --> 00:01:49,520

us together thinking about astrobiology

38

00:01:54,670 --> 00:01:51,500

and about solving problems before we

39

00:01:57,760 --> 00:01:54,680

became specialists and it took me about

40

00:01:59,499 --> 00:01:57,770

10 years to really understand the value

41

00:02:00,399 --> 00:01:59,509

and the meaning of what he had done to

42

00:02:02,440 --> 00:02:00,409

us

43

00:02:04,300 --> 00:02:02,450

but now I get it I think and I'd like to

44

00:02:07,630 --> 00:02:04,310

illustrate that with an analogy which is

45

00:02:10,090 --> 00:02:07,640

that if you as an adult who grew up in a

46

00:02:12,130 --> 00:02:10,100

homogeneous community are put into an

47

00:02:14,350 --> 00:02:12,140

ethnically diverse community now or

48

00:02:16,330 --> 00:02:14,360

gender identity diverse or sexual

49

00:02:17,890 --> 00:02:16,340

orientation diverse community you may

50

00:02:20,080 --> 00:02:17,900

have all the best intentions to really

51
00:02:21,550 --> 00:02:20,090
understand our world but you'll never

52
00:02:24,610 --> 00:02:21,560
understand it as well as somebody who

53
00:02:25,150 --> 00:02:24,620
simply grew up there and so who that is

54
00:02:25,870 --> 00:02:25,160
normal

55
00:02:28,570 --> 00:02:25,880
that's what snore

56
00:02:29,860 --> 00:02:28,580
it's that diversity and this right here

57
00:02:32,590 --> 00:02:29,870
in this room is what's normal to us

58
00:02:34,870 --> 00:02:32,600
because of you we grew up in this

59
00:02:40,890 --> 00:02:34,880
environment and you know I have

60
00:02:45,790 --> 00:02:44,560
and I can only you know my only hope is

61
00:02:49,060 --> 00:02:45,800
that there are you know other

62
00:02:52,630 --> 00:02:49,070
astrobiology leaders in other world that

63
00:02:55,510 --> 00:02:52,640

are like you and I hope that you know

64

00:02:58,450 --> 00:02:55,520

one day future generations of humans

65

00:03:00,090 --> 00:02:58,460

will know life elsewhere as normal the

66

00:03:02,830 --> 00:03:00,100

way we know interdisciplinary is normal

67

00:03:05,140 --> 00:03:02,840

with you so and with that I would like

68

00:03:08,080 --> 00:03:05,150

to welcome a good friend of yours David

69

00:03:10,090 --> 00:03:08,090

Emma ray to the to the stage he is a

70

00:03:11,470 --> 00:03:10,100

research scientist at NASA Ames and he's

71

00:03:14,340 --> 00:03:11,480

going to explain to us how to make

72

00:03:17,170 --> 00:03:14,350

another Carl because we need that and

73

00:03:20,650 --> 00:03:17,180

he's a his you're like me show this is

74

00:03:23,560 --> 00:03:20,660

an amazing person he did go to Purdue as

75

00:03:26,110 --> 00:03:23,570

for bachelor's in chemistry nobody's

76

00:03:29,260 --> 00:03:26,120

perfect but but then he did it did fix

77

00:03:31,090 --> 00:03:29,270

himself with a master's in a in geology

78

00:03:37,120 --> 00:03:31,100

and a PhD in geochemistry at the neon

79

00:03:41,080 --> 00:03:37,130

University so please Dave thank you very

80

00:03:43,360 --> 00:03:41,090

much well when you hear about the

81

00:03:45,580 --> 00:03:43,370

summary of Karl's career you'll realize

82

00:03:48,160 --> 00:03:45,590

it's just no chance evolutionary

83

00:03:50,470 --> 00:03:48,170

accident that he came upon this role in

84

00:03:52,810 --> 00:03:50,480

interdisciplinary Sciences career reads

85

00:03:55,450 --> 00:03:52,820

like the history recent major advances

86

00:03:56,860 --> 00:03:55,460

in planetary science quite frankly he

87

00:03:58,780 --> 00:03:56,870

received his bachelor's degree in

88

00:04:02,080 --> 00:03:58,790

chemistry from Polytechnic Institute of

89

00:04:03,580 --> 00:04:02,090

Brooklyn in 1968 these numbers are

90

00:04:06,370 --> 00:04:03,590

shocking to you they're shocking to me

91

00:04:09,700 --> 00:04:06,380

because we're only about a year apart in

92

00:04:11,830 --> 00:04:09,710

1973 a PhD in chemistry from MIT as a

93

00:04:13,930 --> 00:04:11,840

grad student and this is mind-boggling

94

00:04:15,970 --> 00:04:13,940

he led teams that discovered water ice

95

00:04:20,490 --> 00:04:15,980

and Saturn's rings and in three of

96

00:04:22,750 --> 00:04:20,500

Jupiter's sigelei and satellites okay

97

00:04:24,460 --> 00:04:22,760

joined the faculty a University of

98

00:04:26,260 --> 00:04:24,470

Hawaii first Institute of astronomy and

99

00:04:29,080 --> 00:04:26,270

then a later Department of physics and

100

00:04:31,420 --> 00:04:29,090

astronomy whereupon he discovered and

101
00:04:33,160 --> 00:04:31,430
analyzed the weather on Neptune

102
00:04:35,380 --> 00:04:33,170
basically dynamic processes that were

103
00:04:38,300 --> 00:04:35,390
observable and he participated in the

104
00:04:41,310 --> 00:04:38,310
discovery of methane ice on Pluto

105
00:04:42,810 --> 00:04:41,320
in 1987 he made the transition from

106
00:04:45,330 --> 00:04:42,820
academia to government through a

107
00:04:47,400 --> 00:04:45,340
master's degree from Woodrow Wilson

108
00:04:50,580 --> 00:04:47,410
School of Public and International

109
00:04:53,400 --> 00:04:50,590
Affairs at Princeton and began his NASA

110
00:04:55,020 --> 00:04:53,410
management career in 1988 first the

111
00:04:56,760 --> 00:04:55,030
science director of the office of

112
00:04:58,920 --> 00:04:56,770
exploration and then with the office of

113
00:05:00,900 --> 00:04:58,930

space science and applications he led

114

00:05:03,000 --> 00:05:00,910

the scientific science development of

115

00:05:05,340 --> 00:05:03,010

planets planning efforts for making

116

00:05:07,890 --> 00:05:05,350

humans for sending humans and to the

117

00:05:10,740 --> 00:05:07,900

Moon and Mars this is the George HW Bush

118

00:05:14,190 --> 00:05:10,750

initiative that some of us remember he

119

00:05:16,950 --> 00:05:14,200

led the development of solar system

120

00:05:18,600 --> 00:05:16,960

exploration robotic missions organized

121

00:05:21,360 --> 00:05:18,610

the science team for the Clementine

122

00:05:24,630 --> 00:05:21,370

lunar mission led the development of the

123

00:05:26,790 --> 00:05:24,640

discovery program a non-trivial program

124

00:05:30,680 --> 00:05:26,800

that we now have it's done wonderful

125

00:05:33,030 --> 00:05:30,690

things it's with small mission concepts

126
00:05:35,810 --> 00:05:33,040
including the inclusion of Sojourner

127
00:05:38,040 --> 00:05:35,820
Rover in Mars Pathfinder missions ok

128
00:05:39,660 --> 00:05:38,050
subsequent positions developed

129
00:05:41,790 --> 00:05:39,670
international partnerships for space

130
00:05:42,990 --> 00:05:41,800
science programs and the science

131
00:05:45,210 --> 00:05:43,000
direction of the solar system

132
00:05:48,510 --> 00:05:45,220
exploration program in general his

133
00:05:50,580 --> 00:05:48,520
transition to astrobiology was inspired

134
00:05:52,470 --> 00:05:50,590
by the discovery of exoplanets and by

135
00:05:55,920 --> 00:05:52,480
the whole revelation surrounding the

136
00:05:58,350 --> 00:05:55,930
Allen Hills meteorite in the mid 90s he

137
00:06:01,290 --> 00:05:58,360
was responsible for astrobiology related

138
00:06:03,810 --> 00:06:01,300

initiatives including and not a minor

139

00:06:05,790 --> 00:06:03,820

detail here program scientist for the

140

00:06:08,820 --> 00:06:05,800

Kepler mission in those early days where

141

00:06:11,670 --> 00:06:08,830

you know it's it's progress was an

142

00:06:14,460 --> 00:06:11,680

uncertain thing NASA's participation in

143

00:06:16,050 --> 00:06:14,470

the Keck Observatory on Mauna Kea and of

144

00:06:20,010 --> 00:06:16,060

course managing the astrobiology program

145

00:06:23,460 --> 00:06:20,020

per se in 19 or 2005 he became nei

146

00:06:26,070 --> 00:06:23,470

director in 2006 managed over a thousand

147

00:06:28,890 --> 00:06:26,080

members of this steer the nei towards a

148

00:06:31,680 --> 00:06:28,900

more supportive role of missions from

149

00:06:33,750 --> 00:06:31,690

NASA and providing of course as you've

150

00:06:36,510 --> 00:06:33,760

heard inspiration support for students

151
00:06:38,670 --> 00:06:36,520
and international participation by you

152
00:06:41,730 --> 00:06:38,680
know teams trying to get astrobiology

153
00:06:45,150 --> 00:06:41,740
started in other countries he retired in

154
00:06:46,950 --> 00:06:45,160
2013 but he returned in 2014 to ease the

155
00:06:49,310 --> 00:06:46,960
transition to a new director which that

156
00:06:51,600 --> 00:06:49,320
we have penny Boston with us today

157
00:06:52,600 --> 00:06:51,610
thought he's taught a number of college

158
00:06:55,240 --> 00:06:52,610
classes since two

159
00:06:57,550 --> 00:06:55,250
13 and I've just learned that he's now

160
00:06:59,320 --> 00:06:57,560
with blue marble space Institute a

161
00:07:01,209 --> 00:06:59,330
science providing an interesting

162
00:07:03,070 --> 00:07:01,219
supporting role in cancer research so

163
00:07:05,920 --> 00:07:03,080

another lateral gene transfer in

164

00:07:08,350 --> 00:07:05,930

progress here so you know you look at

165

00:07:11,290 --> 00:07:08,360

all of that and for me I get some key

166

00:07:13,270 --> 00:07:11,300

personal observations about Carl first

167

00:07:14,589 --> 00:07:13,280

he's an accomplished research scientist

168

00:07:16,510 --> 00:07:14,599

I mean obviously made some major

169

00:07:18,580 --> 00:07:16,520

discoveries early in his career who then

170

00:07:20,200 --> 00:07:18,590

became a program manager I mean these

171

00:07:22,089 --> 00:07:20,210

folks are worth their weight in platinum

172

00:07:25,330 --> 00:07:22,099

okay maybe gold goals got a higher

173

00:07:27,040 --> 00:07:25,340

market price right now those challenges

174

00:07:29,709 --> 00:07:27,050

and appreciates the value of research

175

00:07:31,570 --> 00:07:29,719

and then goes into management therefore

176

00:07:33,309 --> 00:07:31,580

has effective management skills and

177

00:07:35,709 --> 00:07:33,319

knowledge of that playing field at NASA

178

00:07:38,860 --> 00:07:35,719

headquarters you know we know how that

179

00:07:40,719 --> 00:07:38,870

can be exemplifies a science manager who

180

00:07:42,429 --> 00:07:40,729

is incredibly valuable for research and

181

00:07:44,740 --> 00:07:42,439

missions I mean he's in there managing

182

00:07:46,809 --> 00:07:44,750

involved with decisions but has that

183

00:07:49,059 --> 00:07:46,819

research background a successful

184

00:07:50,830 --> 00:07:49,069

research background and of course the

185

00:07:52,689 --> 00:07:50,840

evidence of his effectiveness is course

186

00:07:54,999 --> 00:07:52,699

the record of successes of the all these

187

00:07:56,950 --> 00:07:55,009

programs that I listed there he

188

00:07:58,600 --> 00:07:56,960

demonstrates an intellectual capacity

189

00:08:00,369 --> 00:07:58,610

and flexibility to respond to

190

00:08:01,990 --> 00:08:00,379

opportunities to make missions happen

191

00:08:03,540 --> 00:08:02,000

and to guide the emergence of new

192

00:08:05,499 --> 00:08:03,550

science discipline as you've heard

193

00:08:07,950 --> 00:08:05,509

really crucially involved in

194

00:08:10,869 --> 00:08:07,960

astrobiology in its early days

195

00:08:13,360 --> 00:08:10,879

successfully navigated their major career

196

00:08:15,339 --> 00:08:13,370

changes a chemist spectroscopy

197

00:08:17,200 --> 00:08:15,349

taking a microbiology course at Marine

198

00:08:19,689 --> 00:08:17,210

Biological Laboratory well into his

199

00:08:21,129 --> 00:08:19,699

career which tend would facilitate his

200

00:08:23,980 --> 00:08:21,139

transition to becoming an effective

201
00:08:25,659 --> 00:08:23,990
manager in the astrobiology program of

202
00:08:28,179 --> 00:08:25,669
course what we know about the most here

203
00:08:30,399 --> 00:08:28,189
is that he became Nai director bringing

204
00:08:32,380 --> 00:08:30,409
those strong management skills and

205
00:08:34,870 --> 00:08:32,390
because of that background linking nei

206
00:08:37,480 --> 00:08:34,880
more strongly to NASA goals and

207
00:08:39,610 --> 00:08:37,490
objectives maintaining it in a

208
00:08:41,920 --> 00:08:39,620
remarkable institutional stability for

209
00:08:43,930 --> 00:08:41,930
nai during a period when you know you

210
00:08:46,630 --> 00:08:43,940
know it was still establishing itself in

211
00:08:48,160 --> 00:08:46,640
the landscape of NASA and of course it

212
00:08:50,350 --> 00:08:48,170
maintained this high scientific

213
00:08:53,470 --> 00:08:50,360

productivity and of course all of this

214

00:08:55,360 --> 00:08:53,480

is made more possible by the fact Carl's

215

00:08:58,060 --> 00:08:55,370

an incredibly personable sympathetic

216

00:09:00,550 --> 00:08:58,070

creative person who's really strongly

217

00:09:02,650 --> 00:09:00,560

supportive of others I'd like to close

218

00:09:05,139 --> 00:09:02,660

by mentioning something that very

219

00:09:05,960 --> 00:09:05,149

Bloomberg once said of course use a

220

00:09:08,569 --> 00:09:05,970

former director

221

00:09:10,309 --> 00:09:08,579

self and of course Nobel laureate and he

222

00:09:12,170 --> 00:09:10,319

once remarked that scientific research

223

00:09:13,910 --> 00:09:12,180

is like building cathedrals which course

224

00:09:16,759 --> 00:09:13,920

is a long-term multi general

225

00:09:18,439 --> 00:09:16,769

generational effort those who create the

226

00:09:20,240 --> 00:09:18,449

foundations will not live to see the

227

00:09:22,819 --> 00:09:20,250

ultimate culmination of their efforts

228

00:09:24,439 --> 00:09:22,829

Carl Pilcher not only performed

229

00:09:26,179 --> 00:09:24,449

breakthrough research that supplied

230

00:09:28,579 --> 00:09:26,189

several of the building blocks for this

231

00:09:30,590 --> 00:09:28,589

planetary science Cathedral he then

232

00:09:33,319 --> 00:09:30,600

became a major architect who helped to

233

00:09:35,749 --> 00:09:33,329

build key NASA programs including

234

00:09:37,699 --> 00:09:35,759

astrobiology that will create an

235

00:10:01,060 --> 00:09:37,709

enduring legacy in science and

236

00:10:05,480 --> 00:10:03,740

among the early career scientists we

237

00:10:08,810 --> 00:10:05,490

always joke that astrobiology has more

238

00:10:10,760 --> 00:10:08,820

hugs than any other conference so we're

239

00:10:12,380 --> 00:10:10,770

going to open for community comment for

240

00:10:14,200 --> 00:10:12,390

people to share their stories about Karl

241

00:10:16,790 --> 00:10:14,210

in just a moment but I do want to thank

242

00:10:18,140 --> 00:10:16,800

marina and a cell in particular for

243

00:10:20,660 --> 00:10:18,150

organizing the session they did a

244

00:10:23,450 --> 00:10:20,670

wonderful job doing this such as a thank

245

00:10:25,370 --> 00:10:23,460

you for them and it's part of the reason

246

00:10:28,190 --> 00:10:25,380

that we have such a wonderful community

247

00:10:31,370 --> 00:10:28,200

is because of all of us together and

248

00:10:32,150 --> 00:10:31,380

inspired by Karl so I don't think that

249

00:10:33,590 --> 00:10:32,160

we're going to have a chance for

250

00:10:34,760 --> 00:10:33,600

everybody to come up to the mic probably

251
00:10:36,770 --> 00:10:34,770
in the short amount of time we have so I

252
00:10:38,270 --> 00:10:36,780
just thought maybe I would invite

253
00:10:40,250 --> 00:10:38,280
everyone to stay on that thinks their

254
00:10:41,960 --> 00:10:40,260
career has been positively influenced by

255
00:10:50,390 --> 00:10:41,970
Karl I'm sure there's a lot of people in

256
00:10:53,210 --> 00:10:50,400
the room that can test to it yeah so so

257
00:10:54,830 --> 00:10:53,220
I think I'm obviously not everyone in

258
00:10:57,050 --> 00:10:54,840
this room whose career has been impacted

259
00:11:01,790 --> 00:10:57,060
by you is getting here today but there

260
00:11:03,380 --> 00:11:01,800
are a lot of us and I think I'm going to

261
00:11:05,780 --> 00:11:03,390
a crow marinas comments a little bit but

262
00:11:07,550 --> 00:11:05,790
I think a lot of us were raised as

263
00:11:10,580 --> 00:11:07,560

astrobiologists we grew up this is this

264

00:11:12,410 --> 00:11:10,590

is home and you know wouldn't have a

265

00:11:13,550 --> 00:11:12,420

discipline without astrobiology I can

266

00:11:16,880 --> 00:11:13,560

stand here probably to say that

267

00:11:19,280 --> 00:11:16,890

astrobiology is my discipline because of

268

00:11:22,400 --> 00:11:19,290

Karl's inspiration and in driving us

269

00:11:24,230 --> 00:11:22,410

from a really early career stage to to

270

00:11:26,270 --> 00:11:24,240

really ask the big questions and go

271

00:11:27,890 --> 00:11:26,280

after them and not see the disciplinary

272

00:11:29,750 --> 00:11:27,900

boundaries I just like them there so

273

00:11:33,590 --> 00:11:29,760

thank you so much for that just really

274

00:11:37,040 --> 00:11:33,600

inspirational surface so please others

275

00:11:55,530 --> 00:11:37,050

come up and let's share our stories

276

00:12:02,820 --> 00:12:01,320

oh I cut you sorry so how many people

277

00:12:07,140 --> 00:12:02,830

here have heard Carl played the piano

278

00:12:09,060 --> 00:12:07,150

before yeah I I think anybody who has

279

00:12:12,150 --> 00:12:09,070

noticed that he could have easily chosen

280

00:12:15,090 --> 00:12:12,160

a career as a celebrated concert pianist

281

00:12:17,220 --> 00:12:15,100

and I say this just to remind us all of

282

00:12:19,140 --> 00:12:17,230

how lucky we are that he became an

283

00:12:22,620 --> 00:12:19,150

astrobiologist instead because there are

284

00:12:25,080 --> 00:12:22,630

a few who have done as much as you've

285

00:12:37,710 --> 00:12:25,090

heard to support our community Thank You

286

00:12:41,100 --> 00:12:37,720

Carl Carl didn't realize he had such a

287

00:12:46,550 --> 00:12:41,110

fierce beard when you're young looks

288

00:12:51,420 --> 00:12:49,560

one aspect of Carl has been absolutely

289

00:12:54,450 --> 00:12:51,430

incredible particularly for us early

290

00:12:56,240 --> 00:12:54,460

careers is his trust in placing in us

291

00:12:59,160 --> 00:12:56,250

the responsibilities of a conference and

292

00:13:01,860 --> 00:12:59,170

I can speak for many of us early careers

293

00:13:04,890 --> 00:13:01,870

that ab grad colin has been fundamental

294

00:13:06,360 --> 00:13:04,900

in how we do science personally my some

295

00:13:09,180 --> 00:13:06,370

of my best friends and closest

296

00:13:11,010 --> 00:13:09,190

colleagues emerge from that and for me

297

00:13:12,990 --> 00:13:11,020

personally it made me realize that when

298

00:13:14,730 --> 00:13:13,000

you work with your buddies on topics

299

00:13:16,050 --> 00:13:14,740

that are not necessarily only about

300

00:13:18,090 --> 00:13:16,060

astrobiology you can accomplish

301
00:13:19,590 --> 00:13:18,100
fantastic things and that's something

302
00:13:22,080 --> 00:13:19,600
that would be impossible without the

303
00:13:24,600 --> 00:13:22,090
trust of here you get have a little bit

304
00:13:28,020 --> 00:13:24,610
of money organize your conference no pis

305
00:13:30,330 --> 00:13:28,030
have a great time and I think the the

306
00:13:34,110 --> 00:13:30,340
tightness of our community like Sarah

307
00:13:36,060 --> 00:13:34,120
echoed through the density of hugs that

308
00:13:39,210 --> 00:13:36,070
are at apps icon compared to hu for

309
00:13:42,310 --> 00:13:39,220
example is a true testament to Carl's

310
00:13:57,720 --> 00:13:42,320
leadership so thank you for that

311
00:14:04,389 --> 00:14:01,319
so it was almost exactly 10 years ago

312
00:14:05,829 --> 00:14:04,399
that and Karl still didn't have a lot of

313
00:14:07,949 --> 00:14:05,839

hair 10 years ago I want to know when

314

00:14:10,720 --> 00:14:07,959

the hair disappeared from this photos

315

00:14:13,299 --> 00:14:10,730

the Karl gave me a call and said Arielle

316

00:14:15,729 --> 00:14:13,309

I'd like you to share the science

317

00:14:17,519 --> 00:14:15,739

organizing committee for ABS icon 2008

318

00:14:20,079 --> 00:14:17,529

which at that point was about a year way

319

00:14:21,160 --> 00:14:20,089

my first reaction was what it's only

320

00:14:23,679 --> 00:14:21,170

your way you guys don't even have a

321

00:14:26,530 --> 00:14:23,689

science organizing care what what but my

322

00:14:28,389 --> 00:14:26,540

second reaction was to be a bit daunted

323

00:14:30,100 --> 00:14:28,399

and I'm recall saying to Karl something

324

00:14:32,470 --> 00:14:30,110

like you know I don't know that I have

325

00:14:35,109 --> 00:14:32,480

the experience to do this nor do I feel

326

00:14:37,150 --> 00:14:35,119

that I necessary have the stature to be

327

00:14:38,410 --> 00:14:37,160

the chair of this committee and Karl

328

00:14:39,819 --> 00:14:38,420

said something that I'm sure many of you

329

00:14:41,169 --> 00:14:39,829

have heard something like that said of

330

00:14:42,910 --> 00:14:41,179

the exact word but something the effect

331

00:14:45,489 --> 00:14:42,920

of oh I think you'll do very well I

332

00:14:47,769 --> 00:14:45,499

think I'll be fine and it's that

333

00:14:49,780 --> 00:14:47,779

combination of creating opportunity and

334

00:14:53,169 --> 00:14:49,790

providing this sort of quiet calm

335

00:14:55,179 --> 00:14:53,179

reassurance that I think is the hallmark

336

00:14:56,650 --> 00:14:55,189

of the way Carl has nurtured many of us

337

00:14:58,179 --> 00:14:56,660

me neither early career folks here who

338

00:14:59,169 --> 00:14:58,189

are still still call themselves early

339

00:15:01,299 --> 00:14:59,179

career and those of us who now have

340

00:15:02,530 --> 00:15:01,309

enough gray hair that were beyond early

341

00:15:05,019 --> 00:15:02,540

career but still remember what that was

342

00:15:07,150 --> 00:15:05,029

like so thank you very very much Carl I

343

00:15:09,609 --> 00:15:07,160

wouldn't be here without your calm

344

00:15:10,490 --> 00:15:09,619

patient opportunity creation and support

345

00:15:27,030 --> 00:15:10,500

thank you

346

00:15:32,590 --> 00:15:30,129

I'm Lauren and I'm kind of a early

347

00:15:33,729 --> 00:15:32,600

career astrobiologists because I came

348

00:15:37,059 --> 00:15:33,739

into it a little bit late in life

349

00:15:39,009 --> 00:15:37,069

and so I really so distinctly remember

350

00:15:41,650 --> 00:15:39,019

the first remember the first phone call

351

00:15:44,289 --> 00:15:41,660

I got from Carl which he said you are

352

00:15:46,389 --> 00:15:44,299

now director of an NIH center and I told

353

00:15:47,470 --> 00:15:46,399

my wife and she said that's Nick HUD

354

00:15:52,539 --> 00:15:47,480

playing a joke on you

355

00:15:55,359 --> 00:15:52,549

and but then I met Carl and I was so

356

00:15:59,439 --> 00:15:55,369

struck by this person who has no filter

357

00:16:02,590 --> 00:15:59,449

I didn't see I never saw Carl look tired

358

00:16:04,929 --> 00:16:02,600

or bored you know everything in science

359

00:16:08,650 --> 00:16:04,939

is interesting to him and he has this

360

00:16:10,569 --> 00:16:08,660

sort of childlike wonder when he when he

361

00:16:12,369 --> 00:16:10,579

is around science and being presented

362

00:16:14,019 --> 00:16:12,379

with science and and that has really

363

00:16:16,179 --> 00:16:14,029

inspired me and I've sort of tried that

364

00:16:18,639 --> 00:16:16,189

foster that in myself so I used I used

365

00:16:32,470 --> 00:16:18,649

Carl's a role model and I always well so

366

00:16:36,069 --> 00:16:32,480

thank you very much Carl hi Carl

367

00:16:38,979 --> 00:16:36,079

so I've been thinking I've been thinking

368

00:16:41,949 --> 00:16:38,989

a lot about what to say about you since

369

00:16:44,139 --> 00:16:41,959

we've been receiving wonderful emails

370

00:16:46,090 --> 00:16:44,149

from Marina about this and it's it's

371

00:16:48,789 --> 00:16:46,100

very difficult for me to summarize with

372

00:16:50,919 --> 00:16:48,799

with my known English vocabulary but

373

00:16:54,179 --> 00:16:50,929

what you've done to to our community and

374

00:16:57,699 --> 00:16:54,189

to us and and I think it's the sense of

375

00:17:00,900 --> 00:16:57,709

belonging that that particularly acting

376

00:17:03,909 --> 00:17:00,910

you've contributed in into our lives but

377

00:17:06,789 --> 00:17:03,919

on top of all that you you came into my

378

00:17:08,889 --> 00:17:06,799

life at a time where I wasn't sure if if

379

00:17:11,139 --> 00:17:08,899

science is right for me and and the

380

00:17:13,329 --> 00:17:11,149

reason for that was I was interested in

381

00:17:16,409 --> 00:17:13,339

so many different fields and so many

382

00:17:20,169 --> 00:17:16,419

different questions and I wasn't sure if

383

00:17:22,059 --> 00:17:20,179

one field could feed that and and you

384

00:17:22,569 --> 00:17:22,069

not only showed me that that there is a

385

00:17:24,759 --> 00:17:22,579

field

386

00:17:26,649 --> 00:17:24,769

this is astrobiology and there's a place

387

00:17:29,860 --> 00:17:26,659

for all these questions but also there

388

00:17:32,680 --> 00:17:29,870

is a room for heart and gut in science

389

00:17:34,810 --> 00:17:32,690

and that we should combine that and go

390

00:17:37,210 --> 00:17:34,820

for it so thank you very much and and

391

00:17:39,280 --> 00:17:37,220

even talking about Steve Jay Gould in

392

00:17:41,970 --> 00:17:39,290

the role of chance and necessity

393

00:17:44,710 --> 00:17:41,980

lucien and steve has this wonderful

394

00:17:46,780 --> 00:17:44,720

sentence from his wonderful book called

395

00:17:50,080 --> 00:17:46,790

wonderful life that I know you love and

396

00:17:52,660 --> 00:17:50,090

he says that we pass through world but

397

00:17:54,460 --> 00:17:52,670

just once and and what a great passing

398

00:17:55,690 --> 00:17:54,470

and thank you very much but it's so so

399

00:17:56,950 --> 00:17:55,700

glad that you pass through our life

400

00:18:11,820 --> 00:17:56,960

thank very much

401
00:18:17,669 --> 00:18:15,700
so I just want to kind of you know

402
00:18:20,830 --> 00:18:17,679
emphasize a little bit more about how

403
00:18:22,690 --> 00:18:20,840
Carl created a census to Family and

404
00:18:24,070 --> 00:18:22,700
Community and astrobiology and how much

405
00:18:27,510 --> 00:18:24,080
it's made a difference especially for me

406
00:18:31,840 --> 00:18:27,520
and I think our entire community when I

407
00:18:33,120 --> 00:18:31,850
when I started my PhD I came into the I

408
00:18:35,529 --> 00:18:33,130
came into the eschatology fold along

409
00:18:39,789 --> 00:18:35,539
early on in my career but when I

410
00:18:41,350 --> 00:18:39,799
actually started with my PhD I had come

411
00:18:43,570 --> 00:18:41,360
from a very tumultuous master's degree

412
00:18:45,519 --> 00:18:43,580
just want to NASA fellowship and I had

413
00:18:47,260 --> 00:18:45,529

to do summer rotations at NASA Ames

414

00:18:49,389 --> 00:18:47,270

so my first summer my first summer

415

00:18:51,310 --> 00:18:49,399

arriving at NASA Ames I was full of

416

00:18:53,649 --> 00:18:51,320

anxiety a little bit of imposter

417

00:18:54,700 --> 00:18:53,659

syndrome especially being a minority PhD

418

00:18:56,110 --> 00:18:54,710

student in this new field of

419

00:18:58,960 --> 00:18:56,120

astrobiology where there wasn't a lot of

420

00:19:01,899 --> 00:18:58,970

means around and I remember going over

421

00:19:04,299 --> 00:19:01,909

to the NASA Astrobiology Institute the

422

00:19:07,480 --> 00:19:04,309

main office at Ames and just feeling

423

00:19:09,519 --> 00:19:07,490

super welcomed by Carl and everybody in

424

00:19:11,889 --> 00:19:09,529

the office and just seeing the sense of

425

00:19:13,360 --> 00:19:11,899

home and community and family that was

426

00:19:14,860 --> 00:19:13,370

just generated just within the office

427

00:19:17,139 --> 00:19:14,870

itself I mean it was always welcoming

428

00:19:18,460 --> 00:19:17,149

there's many times if Carl was a busy

429

00:19:20,289 --> 00:19:18,470

he's had me come and sit down and ask

430

00:19:21,730 --> 00:19:20,299

how I was doing they would all Ernest

431

00:19:22,990 --> 00:19:21,740

offered me food it felt like going home

432

00:19:24,310 --> 00:19:23,000

like hey there's food there was always

433

00:19:26,409 --> 00:19:24,320

food in the conference room so I was got

434

00:19:29,620 --> 00:19:26,419

set every time I went there and so it's

435

00:19:31,510 --> 00:19:29,630

just this feeling of family that that I

436

00:19:34,269 --> 00:19:31,520

got from a strategy that just helped me

437

00:19:36,760 --> 00:19:34,279

stay in this community and make me want

438

00:19:38,380 --> 00:19:36,770

to continue to develop in this community

439

00:19:40,210 --> 00:19:38,390

contribute to this community and bring

440

00:19:43,299 --> 00:19:40,220

other young scientists in this community

441

00:19:44,830 --> 00:19:43,309

and it truly is like coming back home to

442

00:19:46,299 --> 00:19:44,840

the greatest biggest most wonderful

443

00:19:48,490 --> 00:19:46,309

family reading and every time I come to

444

00:19:50,350 --> 00:19:48,500

one of these meetings and I thank you

445

00:19:55,660 --> 00:19:50,360

Carl for creating that sense of family

446

00:20:11,530 --> 00:19:55,670

and community and our discipline

447

00:20:17,990 --> 00:20:14,990

so I first met Kyle when I was a PhD

448

00:20:21,050 --> 00:20:18,000

student and I was the lead organizer of

449

00:20:22,910 --> 00:20:21,060

the a Brad corn in 2008 and I would

450

00:20:24,050 --> 00:20:22,920

absolutely echo what others have said

451
00:20:25,940 --> 00:20:24,060
about the importance of those

452
00:20:27,530 --> 00:20:25,950
conferences in building those

453
00:20:29,840 --> 00:20:27,540
interdisciplinary and actually

454
00:20:31,880 --> 00:20:29,850
international links at a very early

455
00:20:34,490 --> 00:20:31,890
stage in the career that we're all still

456
00:20:36,680 --> 00:20:34,500
using now as we as we've advanced and I

457
00:20:38,060 --> 00:20:36,690
in it in addition what the other said

458
00:20:40,430 --> 00:20:38,070
about thanking her for the financial

459
00:20:42,440 --> 00:20:40,440
support I think what struck me was the

460
00:20:44,240 --> 00:20:42,450
was really important was the personal

461
00:20:45,620 --> 00:20:44,250
interest that you show Cole and I

462
00:20:47,540 --> 00:20:45,630
remember you gave up a good portion of

463
00:20:49,820 --> 00:20:47,550

your Sunday to come and spend time at

464

00:20:52,190 --> 00:20:49,830

the conference and talk to us and listen

465

00:20:54,530 --> 00:20:52,200

to us which was really important and

466

00:20:56,090 --> 00:20:54,540

really appreciated and Cole's

467

00:20:58,220 --> 00:20:56,100

support for the early Korea community

468

00:21:02,240 --> 00:20:58,230

hasn't stopped just I now work at the UK

469

00:21:04,130 --> 00:21:02,250

Space Agency and I fund scientists and I

470

00:21:06,500 --> 00:21:04,140

was chatting to Cole just yesterday and

471

00:21:08,180 --> 00:21:06,510

I asked him about you know what he

472

00:21:09,740 --> 00:21:08,190

thought have made the nei so successful

473

00:21:11,480 --> 00:21:09,750

apart from the money which you know

474

00:21:14,330 --> 00:21:11,490

always helps and the first thing he said

475

00:21:16,940 --> 00:21:14,340

to me was investing in the early career

476
00:21:18,890 --> 00:21:16,950
community and I totally agree with that

477
00:21:20,180 --> 00:21:18,900
and thank you a call for all your

478
00:21:22,320 --> 00:21:20,190
support over the years a lot of us

479
00:21:29,430 --> 00:21:22,330
appreciated

480
00:21:32,859 --> 00:21:29,440
[Applause]

481
00:21:34,539 --> 00:21:32,869
so just I apologize we're running out of

482
00:21:36,159 --> 00:21:34,549
time and this speaks to how many people

483
00:21:38,619 --> 00:21:36,169
wouldn't really talk to you and welcome

484
00:21:41,369 --> 00:21:38,629
you still to come in but just in the

485
00:21:46,570 --> 00:21:41,379
interest of time I would just like to

486
00:21:49,029 --> 00:21:46,580
give Carl a poster that was generously

487
00:21:51,549 --> 00:21:49,039
made by you know Estelle Dodson and her

488
00:21:53,259 --> 00:21:51,559

Melissa Kevin Brooks and Neil Cruikshank

489

00:21:55,080 --> 00:21:53,269

and David Morrison and who helped with

490

00:21:57,369 --> 00:21:55,090

the slides too and all the images and

491

00:21:59,489 --> 00:21:57,379

still want to let people know that if if

492

00:22:03,969 --> 00:21:59,499

you haven't signed it you can sign it

493

00:22:05,440 --> 00:22:03,979

outside still but Carl just if you want

494

00:22:08,349 --> 00:22:05,450

to say a few words you're welcome to as

495

00:22:10,719 --> 00:22:08,359

well just for you remember all of us and

496

00:22:29,200 --> 00:22:10,729

there forget because we'll never forget

497

00:22:31,269 --> 00:22:29,210

you oh my god who I learned something

498

00:22:33,430 --> 00:22:31,279

when I went into government

499

00:22:36,969 --> 00:22:33,440

administration which I did almost 30

500

00:22:39,549 --> 00:22:36,979

years ago and that is that there's

501
00:22:41,229 --> 00:22:39,559
another sense of the word enabler we

502
00:22:44,619 --> 00:22:41,239
tend to use the word enabler in a

503
00:22:47,499 --> 00:22:44,629
negative context but there's a really a

504
00:22:51,489 --> 00:22:47,509
very very positive context of the word

505
00:22:54,339 --> 00:22:51,499
enabler and I realized that government

506
00:22:58,049 --> 00:22:54,349
administrators are enablers in that very

507
00:23:00,339 --> 00:22:58,059
best sense of the word because I

508
00:23:01,539 --> 00:23:00,349
realized after a year or two in

509
00:23:05,829 --> 00:23:01,549
government and it did take me a little

510
00:23:08,079 --> 00:23:05,839
while to realize it that my job wasn't

511
00:23:11,919 --> 00:23:08,089
to enable the community that I was

512
00:23:16,629 --> 00:23:11,929
serving to do great things and I started

513
00:23:18,789 --> 00:23:16,639

off mostly serving the planetary science

514

00:23:21,399 --> 00:23:18,799

community and then astrobiology came

515

00:23:24,789 --> 00:23:21,409

along and I thought wow this was

516

00:23:28,149 --> 00:23:24,799

something that I could not not be a part

517

00:23:30,549 --> 00:23:28,159

of and and through some of the ways that

518

00:23:34,299 --> 00:23:30,559

you've already heard about I managed to

519

00:23:35,900 --> 00:23:34,309

learn enough biology to to become a part

520

00:23:38,570 --> 00:23:35,910

of this community

521

00:23:42,110 --> 00:23:38,580

and there is nothing in my career that

522

00:23:44,330 --> 00:23:42,120

has been it there's nothing in my career

523

00:23:46,670 --> 00:23:44,340

that has been more rewarding than

524

00:23:53,540 --> 00:23:46,680

enabling this community to do the things

525

00:23:56,270 --> 00:23:53,550

that it has done so my success is 100% a

526

00:23:59,360 --> 00:23:56,280

reflection of your success it is what

527

00:24:02,060 --> 00:23:59,370

you have done that has made the

528

00:24:05,030 --> 00:24:02,070

astrobiology programs and astrobiology

529

00:24:06,980 --> 00:24:05,040

Institute my tenure as director it is

530

00:24:11,240 --> 00:24:06,990

what you have done that has made that

531

00:24:14,210 --> 00:24:11,250

all a success so thank you all for

532

00:24:17,410 --> 00:24:14,220

everything that you have done and I am