

1 **Salvador Gaytan:** Welcome to SmileTalk, an entertaining and informative dental talk
2 show featuring the latest news and developments in dentistry, as
3 well as other interesting topics that make people smile. I'm
4 Salvador Gaytan, and I'm here with...?

5
6 **Dr. John Chao:** Dr. John Chao. Hi, everybody. We have a wonderful show coming
7 up. Please stay tuned.

8
9 **Salvador Gaytan:** A fantastic show. It's been so fascinating that we've got our
10 special guest, Dr. Avishai Sadan of the Herman Ostrow School of
11 Dentistry of USC. He is the newly minted dean as of August 2009.
12 How are you doing, Dr. Sadan?

13
14 **Dr. Avishai Sadan:** I'm doing just fantastic, thank you for having me again.

15
16 **Salvador Gaytan:** Absolutely.

17
18 **Dr. John Chao:** It's such a pleasure. We had plans to do two shows, but this is
19 going to be the third, and I think we'll end up doing four shows,
20 because this material is just so fascinating. We were talking at the
21 last show about Dr. Sadan's vision regarding the Herman Ostrow
22 School of Dentistry, and we had covered the first one, which was
23 clinical excellence and then we started on the second part, which is
24 the craniofacial research.

25
26 But before we move on to that, I want to bring in a little story of
27 what clinical excellence meant to me when I was attending USC
28 Dental School. One of the most prominent and superb clinicians
29 was Dr. Guy Ho. He is famous for his ability to do precise,
30 accurate dentistry and my experience with him was -- one of the
31 most interesting was that second week of dental school, we were
32 asked to carve a front tooth, the upper right central incisor up to a
33 tenth of a millimeter in accuracy.

34
35 In terms of accuracy, that's less than a 150th of an inch, maybe
36 100th of an inch in accuracy, and nobody could get it done right.
37 So, Dr. Ho decided to show us. The way we did it, was we had to
38 paste it on a piece of chalk and to measure it, and it'd take us hours
39 and hours and hours. He sat down freehand with no gauge, and
40 carved it out of a block of wax, and after he's done, it looked pretty
41 good, right?

42
43 So, he said, "Give me the boley gauge," which was going to
44 measure how far -- whether he was exactly right or not. And when
45 he measured it, there was a gasp, because he was off by about half
46 a millimeter. Dr. Ho looked at it, he says, "Give me another boley

47 gauge; there's something wrong with this gauge". Then he picked
48 up the gauge, and he measured it, it was exactly right, he did it
49 freehand. So, that is the kind of clinical excellence that he was
50 teaching at that time.
51
52 **Salvador Gaytan:** Now, what year was that, Dr. John?
53
54 **Dr. John Chao:** That was -- I graduated 1967, so this was in 1963, and to this day I
55 remember that exactly how that happened. It's amazing and that
56 made the impression that, as I said before, the holy grail of
57 dentistry at that time was just be good, and you always try to be the
58 best that you can, at that time.
59
60 **Dr. Avishai Sadan:** And I have to say one thing which is very, very unique about the
61 Ostrow School of Dentistry of USC, is what we call the Hall of
62 Famers of our school. We have so many legends that influenced
63 the profession so profoundly. This is, I think, one thing that we can
64 be a little selfish about and say it's really, very unique to this
65 school. I don't know many schools who had such great figures that
66 shaped the face of the profession, present, future, past.
67
68 We are the one, our hall of fame group, but so many other people
69 that made an impact on the profession, that is just for you to know,
70 if you look at the current faculty we have, let me tell you, you can
71 see already the next generation of hall of famers.
72
73 **Dr. John Chao:** We have some living legends there, right now, absolutely.
74
75 **Dr. Avishai Sadan:** Absolutely.
76
77 **Dr. John Chao:** And I have a feeling you will be one of them.
78
79 **Dr. Avishai Sadan:** Well, I don't know about that, but I can tell you some of our junior
80 faculty, there's no doubt in my mind...
81
82 **Dr. John Chao:** Not that I don't want you to live long.
83
84 **Salvador Gaytan:** Give him a chance to get acclimated, Dr. John.
85
86 **Dr. Avishai Sadan:** But I think within 10 to 15 years, some of our junior faculty that
87 we recruited, are going to start making an impact that is as good as
88 the one that we had so far with our faculty.
89
90 **Dr. John Chao:** Yeah, I have no doubt of that. I think we're in a new world. At that
91 time, in the 60s, 70s and 80s, it required that particular kind of
92 training to produce successful doctors, and now USC has -- of

93 course, it's adapting to new times and accepting new challenges
94 and changing with it, and you are at the forefront, and you're
95 leading us into that new era of dentistry.
96
97 **Dr. Avishai Sadan:** And one thing this place had and it still has, and that didn't change
98 and will not change, that is very unique to that place, it's the
99 mindset. It doesn't really matter if the profession changes,
100 techniques and technologies, the way we think and process data,
101 but this mindset of settling for nothing but the best, that is what
102 that place is known for.
103
104 **Dr. John Chao:** I like the way you put it, not settling for anything less than the best
105 is another way of saying we want to be good, we want to be
106 number one, we want to be the best.
107
108 **Dr. Avishai Sadan:** Yes.
109
110 **Dr. John Chao:** That permeates through USC, from football down to dentistry.
111
112 **Dr. Avishai Sadan:** Correct.
113
114 **Salvador Gaytan:** So, you get together with the other deans and you say, "Hey, USC,
115 we're number one," and then they don't argue.
116
117 **Dr. John Chao:** Well, it need not be said, because USC knows.
118
119 **Salvador Gaytan:** But we like a good competition, Dr. John. At least I try to rabble
120 rouse, get them all stirred up.
121
122 **Dr. John Chao:** But in Herman Ostrow School of Dentistry, we know.
123
124 **Dr. Avishai Sadan:** Exactly.
125
126 **Dr. John Chao:** We know where we're at, and we're very excited about where we
127 have been and where we will be.
128
129 **Salvador Gaytan:** Okay.
130
131 **Dr. John Chao:** We're back to the vision. The first part of the vision is clinical
132 excellence, the second part is craniofacial research and we had
133 talked about an example of that, which is in uterine treatment of
134 Cleft Palate.
135
136 **Dr. Avishai Sadan:** Correct.
137

138 **Dr. John Chao:** And I was saying at the end of the last show, how I can see if you
139 can intercept a congenital disease in the uterus, that must, as far as
140 cleft palate is concerned, I can see how that skill and technique and
141 technology can be used to intercept other diseases.
142

143 **Dr. Avishai Sadan:** Correct.
144

145 **Salvador Gaytan:** Now, let me just ask a question just from a layperson that's
146 listening. I would think, what does that have to do with dentistry?
147

148 **Dr. Avishai Sadan:** Oh, well, okay, that's the beauty of it, and I think this is where --
149 you couldn't give me a better pitch to start talking about what
150 dentistry is all about. For a lot of people, dentistry is just going to
151 your friendly neighborhood dentist who attends to your dental
152 need, but dentistry, as a profession, for almost a century has
153 established itself as the masters or the owners of the craniofacial
154 domain. So, anything that is related to growth, development,
155 biology, you name it, in the craniofacial complex, you will find us
156 there.
157

158 **Salvador Gaytan:** And craniofacial meaning for the layperson, the head and the --
159 yeah, okay.
160

161 **Dr. Avishai Sadan:** Your jaws, all the area that we consider as the craniofacial
162 complex. Now, when you start talking about it, then you'll
163 understand also the treatment we provide, from diagnosis to
164 treatment goes far beyond the importance of maintaining the
165 human dentition, the head and neck cancer area from treatment,
166 diagnosis, etc. to anything that you would research.
167

168 So, all these things, those are dental issues, even though most
169 people involved wouldn't even be able to guess that that's what
170 dentists do. You can compound the significance of what we do
171 with the understanding now that we know that the oral condition
172 will affect the body as a whole significantly. We know now that
173 the condition and the level of certain periodontal disease may
174 adversely or favorably...
175

176 **Dr. John Chao:** Meaning gum disease.
177

178 **Dr. Avishai Sadan:** Correct. Adversely or favorably affect your overall shape. Some
179 studies have shown, for example, that people with severe
180 rheumatoid arthritis that received periodontal treatment have
181 improved significantly regardless of the protocol they were treated
182 for in rheumatoid arthritis.
183

184 So, we start understanding that the implication of the dental
185 profession, where is it, or we are and will be, reach far, far beyond
186 your dentist that just many times attend to your dental needs,
187 which are very, very important as well, don't get me wrong.
188

189 **Dr. John Chao:** And even on the practice level, as the friendly neighborhood
190 dentist, I see patients doing better once the infection from the
191 mouth is gone. I see energy change, I see them feeling better, they
192 actually come back looking younger, when their mouth becomes
193 infection free. It's a daily occurrence, and this is one of the things
194 our shows has been talking about, haven't we?
195

196 **Salvador Gaytan:** Absolutely.
197

198 **Dr. John Chao:** About how...
199

200 **Dr. Avishai Sadan:** And I think that dentistry, as a profession, has done a great job
201 graduating people who really deserve to carry the title of a clinical
202 science. This is a clinical science. Our thought process, the
203 diagnosis, the recognition of the picture in its entirety is far
204 reaching beyond just the dentition.
205

206 We are there to be at the forefront of diagnosis of systemic
207 diseases that manifest themselves in the craniofacial complex of
208 malignancies, you name it, everything is starting many times with
209 your dentist.
210

211 Take in consideration that most people see their dentist more often
212 than they see their physician, and you start understanding how
213 important it is for us to graduate these quintessential dentists who
214 have everything packaged in, from diagnosis to the basic science
215 understanding to the actual ability to deliver it.
216

217 **Dr. Avishai Sadan:** So, if you want to look at it as the oral physician or the craniofacial
218 physician, here is the -- we are perfectly comfortable with the word
219 dentistry and being a dentist, but we just want you to appreciate
220 and understand the amount of knowledge that your dentist has and
221 what is it that he can do for you.
222

223 **Salvador Gaytan:** Wow.
224

225 **Dr. John Chao:** And on this program, we've talked about sleep apnea.
226

227 **Dr. Avishai Sadan:** Oh, okay.
228

229 **Dr. John Chao:** And what dentists are doing to treat sleep apnea, especially the
230 mild and moderate cases, how we use an appliance to move the
231 jaw forward to enhance the airway when the patient is sleeping.
232 So, there is something that the dentist is indispensable in terms of
233 treatment of [crosstalk] diseases.
234

235 **Dr. Avishai Sadan:** And that goes back also to career opportunities and the versatility
236 that dentistry offers, and one example, when you go into a
237 healthcare related profession, we always think that dentistry
238 probably is the most attractive one, because you can really be all
239 you want to be. For example, if you choose to be a prominent
240 leader in your community and be in private practice, that would be
241 one option.
242

243 But you can go in any direction you want. I just mentioned these
244 brilliant world-renowned researchers, basic science researchers and
245 we can go on and on. The chief of plastic surgery, nothing to do
246 with dentistry -- the chief of plastic surgery at CHLA, The
247 Children Hospital of Los Angeles, Mark Urata is our graduate, he
248 is a dentist.
249

250 **Dr. John Chao:** To begin with.
251

252 **Dr. Avishai Sadan:** He is a dentist who became and oral maxillofacial surgeon, became
253 an MD, a plastic surgeon and a craniofacial surgeon. So, it's all
254 about what you want to be. We give you the platform to
255 accomplish anything. Everything that you would ever dream of is
256 within reach if you graduate out of dentistry.
257

258 **Dr. John Chao:** Yeah, you can even be a radio talk-show host.
259

260 **Dr. Avishai Sadan:** Yes, true.
261

262 **Salvador Gaytan:** You try.
263

264 **Dr. Avishai Sadan:** It's not on our website. We didn't put it on our website right now,
265 which pretty much, if I may say, for perspective students or alums
266 who are interested, we encourage them to visit our website, which
267 is Dentistry.USC.edu. I apologize for not having the talk show
268 thing in it as a career opportunity, but we have a lot of
269 informative...
270

271 **Salvador Gaytan:** It's going to expand.
272

273 **Dr. Avishai Sadan:** Yes, we'll work on that, I promise.
274

275 **Dr. John Chao:** Okay, Dr. Sadan, would you repeat that again please for our
276 audience?
277

278 **Dr. Avishai Sadan:** Yes, the website of the Herman Ostrow School of Dentistry of
279 USC is Dentistry.USC.edu.
280

281 **Salvador Gaytan:** Excellent.
282

283 **Dr. John Chao:** Great.
284

285 **Dr. Avishai Sadan:** Or faster, Dentistry.USC.edu.
286

287 **Salvador Gaytan:** Perfect.
288

289 **Dr. John Chao:** Okay. Now, we are on the second item of your vision.
290

291 **Dr. Avishai Sadan:** Yeah.
292

293 **Salvador Gaytan:** Yes, but before we get to that, let's just introduce our -- in case
294 anyone is just tuning in, right now you're listening to [SmileTalk](#)
295 with Dr. John Chao of Alhambra Dental, and we have our very
296 special guest, Dr. Avishai Sadan. And he is the newly minted dean
297 at the Herman Ostrow School of Dentistry of USC, as of August
298 2009, and he promises a supercharged, power packed vision. Isn't
299 that right, Dr. Sadan?
300

301 **Dr. Avishai Sadan:** Yeah, and I think it's a realistic and a very exciting vision, I mean
302 with the caliber of faculty, staff and students that we have, it's an
303 absolutely doable thing.
304

305 **Dr. John Chao:** I'm supercharged myself.
306

307 **Salvador Gaytan:** Absolutely, well, you're always supercharged, Dr. John, you're
308 always supercharged.
309

310 **Dr. John Chao:** Even more so.
311

312 **Salvador Gaytan:** So, let's get to the -- did we touch upon your second vision?
313

314 **Dr. John Chao:** No, we're still on the second one, the craniofacial research, and we
315 talked about an example of that being intra uterus and interceptive
316 treatments, I would make up my own term for that.
317

318 **Salvador Gaytan:** Okay.
319

320 **Dr. John Chao:** But, go ahead, Dr. Sadan, you have other examples of...

321

322 **Dr. Avishai Sadan:** Yeah, we have numerous fascinating examples. We are really at
323 the forefront of stem cell research. One of our brilliant researchers,
324 Songtao Shi was featured about two years ago in Nature.
325 brightsurf.com/news/headlines For anyone who is involved within
326 this community of research, the magnitude of being published or
327 featured in a journal such as Nature (www.nature.com/nature) is
328 nothing short of earth shaking, because those are publications that
329 host only true discoveries that affect the body of knowledge that
330 we have in general.

331

332 So, just to give you an idea of the caliber of people we have at our
333 school, we have a group that is looking at the relationship between
334 the Cytomegalovirus and deafness, childhood deafness, and how
335 that would affect tooth development. And that's one of the few
336 labs in the world that does that. You may go again and ask, "But
337 how is that related to dentistry?"

338

339 Well, guess what? That's exactly what dentistry is all about. Once
340 you get to know the spectrum and the depth and the breadth of the
341 things we do. So, that is what we do in research. We do many,
342 many other fascinating things. I can never get to cover it.

343

344 For any of our alums that are interested, we just finished our
345 research days, I've mentioned in the previous talk show last week,
346 and we actually had a wonderful booklet that pretty much had all
347 the projects that were featured in that research day. If any of our
348 alums are interested in getting that, we'll be more than happy to
349 give it to them.

350

351 **Dr. John Chao:** Tell us a little bit about saliva diagnostics. Dr. Tankersley was on
352 our show about three weeks ago, and he cited saliva diagnostics as
353 one of the exciting fields in dentistry.

354

355 **Dr. Avishai Sadan:** Oh, that is a phenomenal thing. We always knew that salivary
356 glands and saliva, in general, play a major role in health, but we
357 never really understood the unbelievable diagnostic capabilities
358 that we can leverage on, that are in saliva. When it comes to that
359 field, again going back to what we have in-house, we have Dr.
360 Paul Denny, who is a world renowned researcher in the field of
361 trying to come up with diagnostic measures using saliva.

362

363 **Dr. John Chao:** Dr. Sadan, about three weeks ago, Dr. Tankersley, the President of
364 the American Dental Association was here on our program, and he
365 mentioned saliva diagnostics as one of the exciting fields of
366 dentistry, and we talked about how you can go to the dental office

367 and spit into something and then have a profile of your physical
368 status. Would you just talk to us a little bit about how USC is
369 doing research in that particular field?
370

371 **Dr. Avishai Sadan:** Thank you. You see, when it comes to saliva, the beauty of that
372 approach, is you're looking at something which is not invasive. It is
373 something that's within reach, and what we are looking at,
374 basically, is the ability to get diagnostics, not only of things related
375 to the dental facial complex or the craniofacial complex, but things
376 that are systemic by nature.
377

378 Now, at the Ostrow School of Dentistry of USC, we have two
379 prominent individuals that are busy researching that topic. One of
380 them is Paul Denny, who has been working for a long time on
381 coming up with a series of diagnostic tests that would tell you early
382 on, as a child, whether you're going to be at high risk for caries, in
383 what teeth you may even have caries when you grow up.
384

385 Again, it's a fascinating approach to knowing what is your risk
386 level before, and not after, because retrospectively to look at
387 someone and say, "This is a high risk group," anybody can do that,
388 but being able to predict it and then custom tailor, in the future, a
389 treatment for these people preventively that would alter the natural
390 cause of events.
391

392 If you wouldn't have that, I think this is phenomenal. He's
393 working closely with Dr. Mahvash Navazesh, who is also a very
394 reputable individual in the field of oral medicine, and together we
395 have this group who looks at how to create a platform that actually
396 can be utilized in daily practice.
397

398 So, the first stage, maybe, is to look at the risk for caries, but then
399 it is obvious that if these markers are available in saliva, maybe
400 you will know in the future, if you are more susceptible to colon
401 cancer and other markers that, as time goes by, we know are
402 available in saliva.
403

404 And then, the question is, what are you looking at? For example,
405 Dr. Denny is looking at specific polysaccharides within the saliva,
406 and give the prediction and diagnosis based on those
407 polysaccharides.
408

409 **Dr. John Chao:** So, in the future, maybe in the near future, a mother can take her
410 child to the dentist, do a test like that and the dentist can say, "You
411 know what? Your child has certain risk levels for this and these are
412 the measures we should take".

413
414 **Dr. Avishai Sadan:** Yes and if I even dare to take it a step further, he can be even more
415 specific about maybe the age and the areas that are going to be
416 susceptible.
417
418 **Dr. John Chao:** Wow. How would saliva identify which tooth is going to get
419 decayed?
420
421 **Dr. Avishai Sadan:** Well, that goes back to a very, very long and comprehensive work.
422
423 **Dr. John Chao:** Okay, but that's possible.
424
425 **Dr. Avishai Sadan:** Yeah, it is. Dr. Denny would be...
426
427 **Dr. John Chao:** That's amazing, that's amazing.
428
429 **Dr. Avishai Sadan:** If you're looking for a fascinating discussion, you get Paul Denny
430 here.
431
432 **Dr. John Chao:** Yeah, we were talking about getting those researchers back here to
433 talk to us about that. That's beyond fascinating, the predictive
434 value of research like that is just phenomenal.
435
436 **Salvador Gaytan:** I have a question, Dr. Sadan, about from just listening to both of
437 you. You're talking a lot about medical things, is there an overlap
438 between the school of dentistry research and the USC medical
439 school?
440
441 **Dr. Avishai Sadan:** It's not an overlap. It's an interdisciplinary collaboration.
442
443 **Salvador Gaytan:** Okay.
444
445 **Dr. Avishai Sadan:** We are doing a lot of exciting things together, we are all in
446 healthcare. So, for example, we at the Ostrow School of Dentistry
447 were recently awarded with what is called a P30 Grant by the
448 National Institute of Health through the National Institute of
449 Craniofacial Research, the NIDCR, and this grant that we received
450 or awarded will allow us to hire two researchers that will have dual
451 appointments.
452
453 They will have half an appointment at the school of medicine and
454 half of their appointment will be at the School of Dentistry, and the
455 research will be mutual research. That's called leveraging on
456 infrastructure, opportunities and common interest.
457

458 **Salvador Gaytan:** Very fascinating. From a layperson's perspective, I didn't realize
459 that there was collaboration. That the School of Dentistry has their
460 deal and Medical School has their deal.
461

462 **Dr. Avishai Sadan:** Absolutely not. The school of medicine, the Keck School of
463 Medicine of USC is an integral part of the research we do. We
464 work and collaborate together.
465

466 **Dr. John Chao:** This is the advantage of being in the university setting.
467

468 **Dr. Avishai Sadan:** Exactly. The same goes for the school of engineering and many,
469 many other schools on campus.
470

471 **Salvador Gaytan:** Now, you want to get to the third element of Dr. Sadan's vision,
472 which is what?
473

474 **Dr. Avishai Sadan:** Absolutely. The third element is our community outreach, and I
475 started by saying it's an integral and fundamental part of the
476 university's strategic vision and mission. We want to make an
477 impact and a difference in the life and the quality of life of this
478 society that we are housed in.
479

480 We are part of society and we're committed to making the overall
481 quality of life of the society we're at better. So, when you look at
482 the USC School of Dentistry, the Ostrow School of Dentistry, you
483 first look at our legacy. We were one of the first to start this
484 department of public health or dental public health.
485

486 We have one of the biggest legends, we house one of the biggest
487 legends, Charlie Goldstein who started the mobile clinic, the late
488 Charlie Goldstein, who started the whole concept of going out and
489 reaching out to community with these mobile vans to treat people
490 who cannot reach us.
491

492 There is an access to care issue that I think everyone recognized.
493 We're committed to make a difference in that field. So, if you ask
494 yourself where would you find the Ostrow School of Dentistry
495 within the community, I can give you a long list. I mean, we are
496 almost everywhere.
497

498 From Union Rescue Mission to QueensCare, to the Children
499 Dental Center, we are represented in county VR specialties, at the
500 VA hospitals. We do a lot for the community. It's something
501 which is mutually beneficial. It enables our students to give back to
502 the community, to early on understand the value of being
503 associated with giving back and doing something for the

504 community, and I think it actually alleviates some -- unfortunately
505 on a small scale, and there are other things we need to do in order
506 to do it better and bigger, but it does alleviate and addresses some
507 of the issues of access to care.
508
509 **Salvador Gaytan:** We're coming to the last minute or so of our show, Dr. John. It's
510 been fantastic, with our special guest here and one thing we didn't
511 get to, and we should lead off our next show with it, is the history
512 of who Herman Ostrow is, the \$35 million dollar story.
513
514 **Dr. John Chao:** Yeah, we definitely want to that. I've been itching to get to that
515 subject.
516
517 **Salvador Gaytan:** So, we're going to lead off with our next show next week, and a
518 few other interesting things going on with Dr. Sadan personally,
519 and some other things going on at the university.
520
521 **Dr. John Chao:** And \$35 million donation.
522
523 **Salvador Gaytan:** \$35 million, I wish I could get a \$35 million donation.
524
525 **Dr. John Chao:** When is the last time you got a \$35 donation?
526
527 **Salvador Gaytan:** Maybe I'll start investigating. I got a list here of what's going on in
528 cranial microbial infections. Hey, I can do that for \$35 million,
529 huh? But, anyway that's that. For anyone tuning in, you've been
530 listening to SmileTalk with Dr. John Chao interviewing his very
531 special guest, Dr. Avishai Sadan, the dean of the Herman Ostrow
532 School of Dentistry of USC, and we got a fascinating show. We're
533 going to have him on for our next show, because we still have a
534 few things to go over, Dr. John.
535
536 **Dr. John Chao:** Great. Tune in everybody next week.
537
538 **Salvador Gaytan:** Goodbye.
539
540 [END OF AUDIO]