



# FINISH LINE

## Newsletter Of The Anchorage Running Club

Volume 18 Number 4 -- October 2006

### Vice President's Corner

Fall weather has returned to Anchorage along with Tuesday night races and the Octoberfest run for Beans. Soon we will be getting our skis waxed, sharpening our skates, studding our running shoes or returning to the gym for indoor workouts. Thankfully, there are many winter activities that provide a change of pace from our summer activities. I don't know about you but I am looking forward to easing back on my running miles and trying to develop that perfect skate ski technique. The trouble is my winter demons, a nice leather recliner and a TV remote, sometimes override my best intentions to stay active on those cold winter days.

#### Reflections:

Now is a good time to reflect on the just finished ARC running race season and to make some plans for the next summer. Summer of 2006 was a year of transition for the Anchorage Running Club. Our President David Epstein moved to Washington State early this summer. The ARC directors, officers and members pulled together to successfully continue our schedule of runs. I admit I did email David often with questions about this and that. After 11 years as a director and officer of ARC, David is a great source for information on how things work with the club and races. Thanks David for the time you provided to help us even when you were so busy moving and settling into your new job.

ARC puts on a slate of club runs that are an excellent way for local runners to have a venue for competing or measuring their training progress through the summer. Race directors for these runs were Joan Landis, the Do-Run-Run 4 miler; John Pontarolo, the Trent Waldron half marathon; Veronica Began, Mugwumps 10K; John Clark, the Masters 10K and 5K; Betty

Cronin, Boondocks Breakaway; and, Ed Wilson, Octoberfest Run For Beans. Peggy Cobey and husband Steve had the daunting job of selecting and transporting food provided at Humpys and Octoberfest. All these runs were made possible through the help of volunteers and the occasional paid youth group. Thank

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Pre-Race Strategizing

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## Signing Up For A Coastal Trail Race



### ***Minutes Of The September 27, 2006 ARC Board Of Directors Meeting***

Those present were: Directors Betty Cronin, Peggy Cobey, Ed Wilson and John Pontarolo. Also attending were Gregory Dixon, Mike Halko and Jim Lieb.

FINANCES: Club Treasure Ed Wilson provided a

financial report with a by month spreadsheet of income and expenses. The club has a bank balance of \$40,016.36.

NEWSLETTER: ARC Newsletter Editor, Jim Lieb, requested the club purchase 6.5 Page Maker or better for the club newsletter. We discussed the request and the consensus was to proceed with finding a source and price for this software.

WEBSITE: Club Website manager, Gregory Dixon, described his vision of making over the ARC website. Gregory said the current platform for the website is not very good and does not make it possible for viewers to sent email messages to the club. The directors voiced their appreciation for Gregory researching this issue. The directors agreed that we want to upgrade the ARC website and they voted to have Gregory proceed to find a better platform and provide us with a price.

ELECTION: The election of club directors was discussed. Vice president Pontarolo pointed out that the ARC by-laws call for 9 directors serving staggered 3 year terms. Current there are 4 directors. This summer we lost two directors because of job relocation, David Epstein and his wife Sara Plotnick-Epstein. The directors agreed that it would be desirable to have club elections for directors this fall. The current directors agreed to continue to serve, with their terms expiring on a staggered basis depending on the level of new board members. When potential board nominees are identified a ballot will be prepare and mailed to members.

### **Anchorage Running Club**

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ARC Hotline: (907) 258-4964

Acting President: John Pontarolo

VicePresident: John Pontarolo

Secretary: [vacancy]

Treasurer: Ed Wilson

Board of Directors: Elizabeth Cronin

Peggy Cobey

John Pontarolo

Ed Wilson

Club Haberdasher: [vacancy]

Webmaster: Gregory Dixon

Newsletter Editor: Jim Lieb

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The FINISH LINE is published quarterly  
in January, April, July and October.

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**Need A Running Goal  
To Make It Through  
Another Alaska Winter,  
Check Out**

**2006/07 U. S. Winter Marathons**

11/18 Mtn Home Marathon	Mountain Home AR	12/10 Ken Combs Marathon	Brandenburg KY
11/18 Oklahoma Marathon	Tulsa OK	12/10 Tucson Marathon	Oracle AZ
11/18 Valley of Fire Marathon	Overton NV	12/17 Jacksonville Bank Marathon	Jacksonville FL
11/19 Gobbler Grind Marathon	Overland Park KS	12/23 Drake Well Marathon	Titusville PA
11/19 H H Flying Monkey Marathon	Nashville TN	12/31 Last Chance Marathon	Bellingham WA
11/19 Philadelphia Marathon	Philadelphia PA	12/31 Run for the Ranch Marathon	Springfield MO
11/19 The Tulsa Route 66 Marathon	Tulsa OK	1/01 Texas Marathon	Kingwood TX
11/19 X-Country Marathon	Tampa FL	1/07 Disney World Marathon	Orlando FL
11/23 Atlanta Marathon	Atlanta GA	1/07 OC Marathon	Newport Beach CA
11/25 Mississippi Coast Marathon	Waveland MS	1/14 Legg Mason Marathon	Mobile AL
11/25 Baltimore North Central Marathon	Sparks MD	1/14 Chevron Houston Marathon	Houston TX
11/26 Univ of WA Seattle Marathon	Seattle WA	1/14 PF Chang's Rock'n'Roll Marathon	Phoenix AZ
11/26 Space Coast Marathon	Melbourne FL	1/20 Orlando Xtreme Marathon	Orlando FL
12/02 Baton Rouge Beach Marathon	Baton Rouge LA	1/21 Florida Gulf Beaches Marathon	Clearwater FL
12/02 Death Valley Borax Marathon	Death Valley CA	1/21 San Diego Marathon	Carlsbad CA
12/02 St. Jude Memphis Marathon	Memphis TN	1/28 Miami Marathon	Miami Beach FL
12/02 Tecumseh Trail Marathon	Bloomington IN	2/03 Death Valley Marathon	Death Valley CA
12/03 California Internl. Marathon	Sacramento CA	2/03 Tybee Marathon	Tybee Island GA
12/03 Marathon of Palm Beaches	W Palm Beach FL	2/04 Ocala Marathon	Ocala FL
12/09 Thunder Road Marathon	Charlotte NC	2/04 Pacific Shoreline Mar	Huntington Beach CA
12/09 Kiawah Island Marathon	Kiawah Island SC	2/04 Tallahassee Marathon	Tallahassee FL
12/09 Rocket City Marathon	Hunstville AL	2/10 Sedona Marathon	Sedona AZ
12/10 Dallas White Rock Marathon	Dallas TX	2/11 Mercedes Marathon	Birmingham AL
12/10 Honolulu Marathon	Honolulu HI	2/17 Myrtle Beach Marathon	Myrtle Beach SC
12/10 New Las Vegas Marathon	Las Vegas NV	2/17 San Miguel Buzz Marathon	San Miguel CA
		2/18 A1A Marathon	Ft. Lauderdale FL
		2/18 Austin Marathon	Austin TX
		2/18 Bank of America Marathon	Tampa FL
		2/18 Five Points of Life Marathon	Gainesville FL
		2/18 Pensacola Marathon	Pensacola FL

*cont. from page 1-- Vice President's Corner*

you for your help and support. You made these runs enjoyable for me in many ways. Do fun, hard working people become runners or does running make them so?

Anchorage has such a strong and diverse running community. Whether it be through participation in ARC runs, Alaska Mountain Racing events, track workout groups or other events, there are many opportunities to get out there and run. Thanks to all who choose to become ARC members and participate in ARC events.

ARC's major race of the year, Humpy's Marathon and the associated races, are one of the club's major sources of revenue. Without this race it would be difficult for ARC to purchase or replace expensive race equipment, or to fund our community outreach such as the scholarships we award to deserving High School graduates with a running background. Humpy's is the one ARC race that attracts a large number of outside runners. Renee' Rudd, the former race director of Humpy's Marathon races, jumped in again this year. Renee' really saved the 2006 Humpy's races with her proven guidebook of how to put on the race. Renee' is such an enthusiastic get-it-done kind of person she inspired all of the ARC officers. It is inadequate to just say thank you Renee for all the dedication, time and energy you have provided to make Humpy's happen.

Former ARC president, Mike Halko, resurfaced in Anchorage after years in garden spot Dillingham. Between trips south to make an Across-The-US bike ride, Mike helped ARC in a big way with Humpy's and Oktoberfest this summer. Mike has provided the board some good suggestions on club activities and we look forward to more. Mike, good to have you back in town. Good luck in the Las Vegas Marathon.

Gregory Dixon, a club member, contacted the club and offered his services as club website administrator. Gregory is working on finding a new platform for the club website that will make it more user friendly.

Finish Line, our club newsletter, continued to be a great way to connect with members in 2006. Jim Lieb single handedly puts out our newsletter. Jim has extraordinary organizational skills as evidenced by his captaining 3 Klondike relay teams each September. Please contact Jim if you have a article to contribute to the Finish Line.

Next Year Planning:

The first order of business that ARC should attend to is the election of additional board members. The club by-laws say there shall be nine board members. We are way below that at four. We have three people who have agreed to be on a ballot for new board members. We hope to mail out a ballot before the end of the year. If you would like to be a board member or nominate someone please contact a board member or me at [jpont@gci.net](mailto:jpont@gci.net). Board meetings are informal and consist of planning upcoming events and discussing various interactions with other running organizations in Anchorage.

Potential directors with new ideas or viewpoints on where the club should go are welcomed.

We are planning for the same slate of ARC races in 2007 as this year. One club member has voiced a desire for ARC to put on a winter run. This is a possibility but not before additional planning and the assurance that we can come up with the required support for such an event.

Humpy's Marathon is a club priority and planning for 2007 needs to begin soon. If you are interested in making suggestions for improving Humpy's please contact a board member.

All runners in Anchorage should be excited about the Sports Dome that is planned for Raspberry road. This indoor facility will provide soccer fields and a six lane 411 meter track available to the public. What a boon this is for anyone training for winter runs outside the state. Ole Jordan has worked tirelessly to see that this facility is built. If you see Ole, thank him for his efforts.

ARC club membership is based on a calendar year. That means your membership expires on 12/31/06. By renewing your membership after 1/1/07 you will have free entry to 5 ARC runs, a discounted Humpy entry and these slick Finish Line newsletters. Do not renew on Active.com until after 12/31/06 or you will have an expired 2006 membership. Renew on Active.com after 1/1/07 or with the renewal form provided in the first 2007 Finish Line.

Happy holidays to all and best wishes for 2007.

John Pontarolo  
VicePresident, Anchorage Running Club

*cont. from page 2-- Minutes*

**2007 RUNNING CALENDAR:** The annual meeting for the Alaska runner's calendar is the 1<sup>st</sup> Wednesday of November. There was a question if the calendar would be printed for 2007 because Cindy Liggett at Anchorage Park and Recreation, the person putting the calendar out, is retiring. We will check on this. The board decided that the ARC run schedule for 2007 should be the same as the 2006 runs barring any major conflicts with other organizations scheduling of runs. Betty Cronin mentioned that club member Eric Skidmore suggested the club put on a winter run. Eric will be contacted as the club explores this possibility.

**OCTOBERFEST:** Ed Wilson showed the officers the knit caps that Bristol Bay Native Corporation made up for ARC's Octoberfest Run for Beans race schedule for October 7. The club thanks Mike Halko who contacted Bristol Bay Native Corp. and arranged for the making of the caps. Mike also had special mugs printed for race awards and to provide to the Board members of the Bristol Bay Native Corporation. Volunteer staffing for the run and equipment needs were discussed.

Respectfully submitted,

John Pontarolo  
VicePresident, Anchorage Running Club



The ARC telephone hotline will be removed from service on October 23, 2006. The club will be replacing the hotline with an e-mail address and regularly posted updates on the ARC web site.

*cont. from page 11-- Running Science*

is new here, but I think they bring together a lot of evidence so it all fits into a pattern.

"While few anthropologists argue with the fact that humans evolved to become good runners, Lovejoy remains skeptical we were specifically designed for endurance running.

"There is little doubt that many of the bony features that are mentioned ... are adaptations to running and walking, but there is no evidence that they are specifically adapted to endurance running," he said.

Lovejoy points out that our arms and legs could also be considered well designed for swimming, but that doesn't necessarily mean we evolved specifically to be elite swimmers.

But Lieberman and others counter that endurance running, unlike swimming, could have been a key part of early man's survival. It may have helped them during long hunts and in scouting out abandoned carcasses first, for example.

"Being fast would have been a huge premium," said Heinrich. "Vultures can come in and devour a dead cow in an hour or two. So ideally, the humans would get there first."

Patricia Kramer of the University of Washington, points out there may be a small glitch in that theory. According to most research, early female humans likely did not participate in long hunts, but stayed behind to care for the young. If this is the case, Kramer asks, why would women also have evolved to be good long-distance runners?

"If endurance running was a male activity, then why do women also have small waists and hypertrophied gluteus maximae?" she asks. "I think that understanding how we moved through our environment is critical to understanding who we are as evolved primates ... but as with all good research this causes us to ask a new questions."

Amanda Onion  
ABC News  
November 2005

## OKTOBERFEST 5K & 10K RESULTS

The 2006 Oktoberfest 10K and 5K “Run For Beans” was held Saturday morning, October 7. The annual event co-sponsored by the Anchorage Running Club and the Bristol Bay Native Corp. is used to collect food, clothing, and monetary donations for Bean’s cafe and the Brother Francis Shelter. 169 runners showed up on this rather warm fall morning to participate, 33 more than last year. The Oktoberfest is the Anchorage Running Club’s last event of the year.

Ed Wilson  
Race Director

### Men 10K

- 1) Jerry Ross 33:26;
- 2) Todd List 35:42;
- 3) Evan Hone 35:52;
- 4) John Clark 36:59;
- 5) Michael Dunahoe 37:15;
- 6) Lloyd Raines 37:19;
- 7) Colton Nelson 37:27;
- 8) Chris Robertson 37:46;
- 9) Scott Clemetson 37:56;
- 10) Matt Gillis 38:05;
- 11) Matthew Darmmeyer 38:15;
- 12) Matt Crow 39:54;
- 13) Jeff Johnson 39:56;
- 14) Ozzy Escarate 40:06;
- 15) Timothy Johnson 40:24;
- 16) Mark Finemon 41:08;
- 17) Greg MacDonald 41:23;
- 18) Thomas Burton 42:09;
- 19) Mark Dent 42:22;
- 20) Mike Bourdokofsky 42:28;
- 21) Josiah Stewart 42:34;
- 22) Javier Brambila 42:40;
- 23) Carlos Gomez 44:00;
- 24) Jose Brambila 45:03;
- 25) Jack Griffin 45:25;
- 26) Jon Spring 45:50;
- 27) John Romspert 46:28;
- 28) Gary Steffens 46:41;
- 29) Bill Hogan 47:19;
- 30) Christopher Resner 47:52;
- 31) Dan Willlman 48:25;
- 32) Mike Kenney 48:41;
- 33) Bob Platte 49:03;
- 34) Bill Falsey 49:19;
- 35) John Scudder 49:31;
- 36) Alan Parkinson 49:50;

- 37) David Muzechuk 51:02;
- 38) Carl Martusher 51:04;
- 39) Richard Russell 51:05;
- 40) Rodney Kleedeahn 51:35;
- 41) Neal Fried 52:15;
- 42) Millard Filber 52:33;
- 43) Ross Carter 53:36;
- 44) Tyler Resner 53:40;
- 45) Jason Hamlin 54:16;
- 46) Evan Steinhauser 54:24;
- 47) James Love 54:56;
- 48) Mike Malachowski 56:03;
- 49) Dave Falsey 56:03;
- 50) Robert Lance 56:11;
- 51) Corky Cothell 1:01:58;

### Men 5K

- 1) Tyler Anderson 17:04;
- 2) Christian Harpel 18:03;
- 3) Edward Frank 18:19;
- 4) Bob Davis 19:06;
- 5) John Schmitz 19:43;
- 6) Dan Baldwin 20:22;
- 7) Douglas Johnstone 21:30;
- 8) Vikram Patet 21:54;
- 9) John Wivum 21:55;
- 10) Brian Dean 23:20;
- 11) John Adamson 24:13;
- 12) Milton Cornelius 24:18;
- 13) Jack Ginter 24:47;
- 14) Greg Miller 25:11;
- 15) Phil Kantor 25:33;
- 16) Anthony Barnard 25:53;
- 17) Olin Blackmore 26:14;
- 18) Eddie Steger 27:20;
- 19) Andy Josephson 27:21;
- 20) Donald Hancock 27:42;
- 21) Michael Nasanbeny 28:35;
- 22) Kitchens Max 30:42;
- 23) Terrance Johnson 31:34;
- 24) Chester Franz 31:52;
- 25) Jim Johnson 32:43;
- 26) Tre Sweeney 33:49;
- 27) Kieran Kuiper 33:54;
- 28) Jim Soucek 35:07;
- 29) Charlie Brown 37:10;
- 30) Paul Ongtooguk 40:58;
- 31) Jack Wright 41:35;
- 32) Glenn Galloso 47:42;
- 33) Howard J Hunt 48:31;
- 34) Howard M Hunt 48:32;
- 35) Patrick Flanigan 48:59;

## Women 10K

- 1) Debbie Cropper 39:31;
- 2) Laura Carpenter 41:41;
- 3) Angie Meahan 43:08;
- 4) Shanna Vetter 43:54;
- 5) Katy Rosane 44:27;
- 6) Kari Lance 45:11;
- 7) Megan Kemp 45:34;
- 8) Christine Boullford 45:35;
- 9) Melanie Sugita 46:24;
- 10) Lisa Dale 46:48;
- 11) Kathleen Kenney 48:41;
- 12) Debra Kinn 49:14;
- 13) Cindy Crow 49:18;
- 14) Peggy Hicks 51:04;
- 15) Rose Thiesen 52:28;
- 16) Bonnie Sawnsen 52:35;
- 17) Monica Dale 52:41;
- 18) Anna Maria Parkinson 53:07;
- 19) Jennifer Stroh 53:48;
- 20) Jean Hiller 54:15;
- 21) Katley Brown 54:22;
- 22) Patrice Parker 54:43;
- 23) Christina Lee 54:56;
- 24) Jeanne Kemp 55:00;
- 25) Sarah Kleedeahn 55:25;
- 26) Andrea Haltmayer 55:34;
- 27) Sandra Woods 55:40;
- 28) Melinda Harr 56:04;
- 29) Yvonne Leutwyler 56:09;
- 30) Jackie Carney 56:21;
- 31) Victoria Clark 56:47;
- 32) Sara Hurey 56:54;
- 33) Emily Tweto 57:04;
- 34) Allison Knox 57:14;
- 35) Maria Dale 57:18;
- 36) Mari Eaton 57:20;
- 37) Mary Vollendorf 57:20;
- 38) Kim Reitmeier 57:21;
- 39) Ruth Tweto 57:57;
- 40) Eleanor Claus 1:01:12;
- 41) Monica Gaupp 1:03:34;
- 42) Sue Wilkens 1:03:35;
- 43) Ingrid Everson 1:04:48;
- 44) Kim Rother 1:05:23;
- 45) Cara Lucero 1:06:34;
- 46) Elizabeth Stergiou 1:07:04;
- 47) Echo McDonald 1:07:04;
- 48) Dora Williams 1:16:01;
- 49) Dawn Hansen 1:23:00;

## Women 5K

- 1) Shoshanha Keegan 19:24;
- 2) Andrea Neeser 20:59;
- 3) Rachel Carey 21:52;
- 4) Guenn Platte 22:49;
- 5) Holly Thompson 23:34;
- 6) Leskey Yamauchi 23:53;
- 7) Chloe Miller 24:05;
- 8) Nancy Meade 24:23;
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- 11) Denali Blackmore 26:21;
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- 13) Mary Flanigan 26:30;
- 14) Jill Griffin 26:50;
- 15) Marika Athens 27:28;
- 16) Diane Blakley 27:51;
- 17) Mary Marsolais 28:41;
- 18) Dee Ginter 28:45;
- 19) Teresa Blackmore 30:15;
- 20) Beverly Cason 30:15;
- 21) Diane Hanson 31:46;
- 22) Kim Baldwin 32:01;
- 23) Jamie Woodall 32:20;
- 24) Tana Stone 32:30;
- 25) Sue Restin 32:57;
- 26) Jasmine Woodall 35:04;
- 27) Irene Churchill 35:44;
- 28) Dawna Erlewine 37:10;
- 29) Jan Johnson 41:28;
- 30) Dorinda Hansen 43:13;
- 31) Barbara Mills 47:25;
- 32) Suzanne Hunt 47:28;
- 33) Amy Bristol 51:43;
- 34) Julianna Gauthier 51:44;

All the bills have not come in but based on previous years expenses it looks like ARC raised around \$1800 for Bean's Cafe and the Brother Francis Shelter. Many thanks to race participants who brought donations of food and clothing; Bristol Bay Native Corporation (BBNC), our principal sponsor; Skinny Raven Sports for providing a venue for late registration and bib pickup, and the first place awards; Kaladi Bros who donated two carafes of coffee and coffee cups; and Alaska Serigraphics for first place age group awards. Finally I would like to thank the volunteers. Every year the club reaches out to the running community for help -- we could not hold races if we didn't have volunteers. Ed Wilson

## Running Science & Sports Medicine

### **When do you know you are overtraining?**

Runners are generally perfectionists, capable of pushing themselves to their limits, and usually totally incapable of knowing when to slow down or even stop.

Overtraining is a very real entity. Find out how to recognise and prevent it.

Fatigue is recognised as part and parcel of effective training. How do you distinguish between this and the fraction more which indicates overtraining?

If you are training hard and begin feeling generally fatigued, but your performance is stable or still improving, then you are not overtraining. If, however, your performance starts to drop off then your fatigue is probably one of the first signs of overtraining.

How do you monitor this effectively and not just assume that your performance is dropping because you are not training hard enough? Tim Noakes in *The Lore of Running* [1992], suggests that performance during time trials will be a good indication. Are you having to run harder to achieve the same times? If you are, you are probably training too much.

Of course many people fail to pick this up and continue training, usually even harder, and go on to develop what Bruce Fordyce calls the “plods”. Symptoms of this are sore muscles, heavy legs, sluggishness and a general feeling of fatigue and malaise. If you are sensible enough to rest completely for 24 to 48 hours then the “plods” should disappear completely. If you do not then you will crash into the full blown *Overtraining Syndrome*, with persistent muscle soreness, loss of interest in training, an increase in resting heart rate and changes in sleeping patterns. Once all this has happened then recovery will take 6 to 8 weeks, during which time it is impossible to train or race effectively.

Other signs of severe overtraining can include diarrhoea, persistent weight loss, swollen lymph glands, increased susceptibility to infection, loss of menstruation in women, inability to concentrate and loss of libido.

Other factors which will contribute to overtraining are poor nutrition, lack of sleep, drug or excessive alcohol use, work pressures, emotional conflict and a monotonous training routine.

How can you prevent overtraining?

The key to preventing overtraining is to recognise it early and prevent yourself from getting anywhere near the severe *Overtraining Syndrome* described above. If you answer “yes” to three or more of the following questions then it is time to reduce your training:

Does your normally comfortable pace leave you short of breath?

Do your legs feel “heavy” for longer than usual after a hard work out or race?

Do you find it especially hard to climb steps?

Do you dread the thought of training?

Do you find it particularly hard to get out of bed in the morning?

Do you have a persistent lack of appetite?

Are you more susceptible to colds, headaches and other infections?

Is your heart rate five to ten beats higher than usual?

Is your heart rate during exercise higher than usual?

How do you treat overtraining?

Tim Noakes’s advice is to start running again only when you want to and then only slowly. However, he points out that overtraining in most runners is a chronic, relapsing condition so for prevention, some insight is required by the runner.

Once the full blown, severe *Overtraining Syndrome* has developed then it is necessary to rest for anywhere between 6 and 8 weeks.

Even early overtraining, seen 7 to 14 days before a standard marathon or ultramarathon, will slow the runner between 5 to 20 minutes or 45 to 60 minutes --- in each respective race.

Continuing to train when overtrained will only prolong the eventual rest period. Better to rest early and for a shorter time.

Listen to your body and remember that we all have genetically determined limits to our performance. More is definitely not always better.

*Human Kinetics Publishers, Inc*  
*May 2006*

## **‘Marathon Mice’ created to run farther, longer**

Researchers have unveiled genetically engineered mice that can run farther and longer than their naturally bred brethren, bringing the “genetic” doping” of elite athletes a small step closer.

The creation of the so-called marathon mice follows genetic engineering work that created “Schwarzenegger mice,” rodents that bulked up after getting injected with muscle-building genes.

The engineered mice racing away on their treadmills are bound to add to the furor over performance-enhancing substances.

The gene engineered in these mice essentially mimics exercise: Researchers say it conferred endurance and prevented the modified mice from becoming obese - even when they were kept inactive and fed a high-fat diet.

“This is a real breakthrough in our understanding of exercise and diet and their effects on obesity,” said lead researcher Ronald Evans of the Salk Institute in San Diego. “The practical use of this discovery is the implication in controlling weight.”

The paper describes how engineered mice, even the couch potato variety, were able to run farther and longer if their “fat switch” genes remain switched on continuously. The engineering also appeared to make them immune to obesity.

Evans found the gene he dubbed the “fat switch” more than 10 years ago, but it is only now that its broad implications are being understood. Evans now believes his work has implications for just about every disease of the metabolism, from obesity to heart disease.

“This gives us a real lever on metabolism,” Evans said.

Of course, nobody cares more about the intricacies of the human metabolism than Olympic athletes, and for better or worse, Evans is bracing for a flood of inquiries from their trainers now that his research paper has been published in the online journal *Public Library of Science Biology*.

Many predict that steroids, growth hormones and other drugs and chemicals that cheating athletes take to shave the smallest sliver of a second off their times

will soon seem quaint, replaced by hard-to-detect genetic engineering, which could become commonplace as early as the Beijing Olympics three years from now.

Instead of improving times by fractions of a second, the genetically enhanced marathon mice ran twice as far and nearly twice as long as naturally bred rodents.

The engineered mice ran 1,800 meters before quitting and stayed on the treadmill an hour longer than the natural mice, which were able to stay running for 90 minutes and travel 900 meters. Evans said he has not seen any adverse side effects in the engineered mice.

Evans expects his research will be of keen interest to the sports officials who struggle to keep athletes honest.

Evans and his team made the marathon mice to help them better understand diseases of the metabolism such as obesity and diabetes. The bulked-up “Schwarzenegger mice” serve a different purpose, research into muscular dystrophy treatments.

The “fat switch” gene, when switched on, begins the process of creating “fatigue-resistant” muscles while helping the heart and nervous system create endurance.

Humans run and jump thanks in large part to two types of muscle, known as “fast twitch” and “slow twitch.” Depending on workout regimens, fast twitch is converted into slow twitch or vice versa.

Sprinters crave fast twitch, which confers speed at the cost of endurance. Marathoners work to bulk up slow twitch for the opposite reason. Elite athletes are continuously probing their muscles to ensure they have the right ratio of fast- and slow-twitch muscles.

Evans’ team found that slow twitch converted into fast twitch only when the gene in charge of the process kicked on, which was only when the mice exercised.

So Evans took a piece of genetic material known as a promoter, or “gene switch,” and injected it into the mice, keeping the gene on continuously. As a result, even the laziest mice increased endurance.

Paul Elias  
The Associated Press, August 2005

*cont. page 11*

**An Interview With Dean Karnazes**  
**Anchorage AK**  
**October 2, 2006**

Dean Karnazes described as “the fittest man in the world” by Men’s Fitness magazine, has a worldwide reputation as an elite endurance athlete. His current goal is to complete 50 marathons in 50 days in 50 states. The following interview was conducted about a half hour after completing marathon # 16 of these 50 marathons on Anchorage’s Mayor’s Midnight Sun Marathon course.

*So, Dean, what did you think of our Mayor’s Midnight Sun Marathon?*

Unlike most of the marathons I’ve done so far over the past 16 days, this one was cold for me. I’ve been asking if anyone has a hot tub I could use to warm up – I’m still chilled.

*Any particular highlight for you in today’s marathon?*

One of the highlights of today’s marathon occurred at about Mile 14 on the course where we encountered a moose leg on the trail, fresh, still warm. I’ve done a lot of marathons over the years but never encountered anything like this. One of the group chucked the leg into the woods and we were out of there.... quickly.

*I suspect that one of the things that many of our readers might be interested in hearing about is your background — where were you born and raised?*

I was born in Los Angeles and raised pretty much in Southern California

*So how did you get into running – were your parents runners?*

Actually I started running home from kindergarten – my mom was having problems picking me up after school, and I just told her don’t bother, I’ll run home. I just loved running and did this throughout the primary grades.

*Did you run in high school?*

I ran cross-country as a freshman in high school and then took a bit of a hiatus.....until my 30<sup>th</sup> birthday. I was doing what you do on your 30<sup>th</sup> and as I walked out of the bar about midnight I said to myself, you

know what, I used to love to run and I don’t like where my life is right now, I’m going back to running.... AND I’m going to run 30 miles tonight to celebrate my 30<sup>th</sup> birthday, and I did.

*When was your first marathon?*

Probably about 1994, when I ran the Honolulu Marathon

*After that, how long did it take you to get to what you have been doing in recent years, extreme stuff, ultra marathons?*

It took me about one year after my first marathon to run my first 50 mile race, and shortly afterwards I completed my first 100 miler, Western States.

*Wow, that’s a very rapid evolution?*

Yes, but we runners are compulsive, right!

*With a marathon every 24 hours, you must have some little things you do for recovery and taking care of yourself?*

On the hotter ones, which actually are many of the ones completed before today, I’ve been trying to get into an ice-bath. But its been sporadic because of the travel involved. The marathon is one thing, but then getting in a bus and driving for 8 or 10 hours has been most challenging -- sitting still is horrible. You need to be moving and stretching.

*For folks who are trying to perfect their marathon running, do you have any words of wisdom?*

I would say that there is a lot to be said for the negative split. There are a lot of really good runners out there who make the mistake of going out too hard in a marathon. When I’ve maintained a slower pace and done a negative split, I pass a lot a people at the end who are just doing a shuffle the last few miles because they’re burned themselves out. So you need to have the discipline to go slower in the first half and you’ll reap dividends at the end.

*Thank you and good luck with your next 34.*

Jim Lieb  
ARC Newsletter Editor

*cont. from p.9, Running Science*

## **Humans Are Born to Run**

Not everyone may feel this way, but new research argues that humans evolved to become natural runners.

From our spring-loaded ligaments to our muscular behinds to our ability to sweat, the human body took the ideal shape of a long-distance runner starting some 2 million years ago, the researchers say. The long, lean build helped us scavenge widely scattered kills and could also have been an advantage when hunting down prey over long distances.

“We’re lousy sprinters, but we’re really great long-distance runners,” said Daniel Lieberman, an anthropologist at Harvard University. “Anyone who jogs regularly can tell you that it feels good.”

How can two legs be better than four when it comes to striding for long distances? Consider the fact that some 334,000 people ran marathons in the United States last year, and then try getting an antelope to run 26 miles, or a chimp, for that matter.

“You’d never beat a chimp in a 100-meter dash, but you could never get them to run a marathon,” he said. “And they wouldn’t like trying.”

Evolutionary biologists have generally credited humans’ ability to run as an offshoot of our ability to walk on two feet.

“How can anyone even conceive of an animal evolving a walking strategy that was entirely decoupled from a running strategy?” asks C. Owen Lovejoy of Kent State University in Kent, Ohio.

But in a study appearing in this week’s issue of “Nature,” Harvard’s Lieberman and Dennis Bramble of the University of Utah argue that endurance running may have been so critical in early humans’ survival that it played a role in shaping many aspects of our bodies.

### **Runners From Head to Toe**

The pair studied both modern human anatomy and the fossil record of early human ancestors to look for characteristics that would have specifically enhanced people’s ability to run for long distances. They say most, if not all of these key features seem to have emerged 2

million years ago with the first appearances of the genus *Homo* — the same group as modern living humans.

The peroneus brevis tendon, for example, made famous by Red Sox pitcher Curt Schilling’s injury during the 2004 World Series, is one of several elongated tendons in the human body that the authors argue provides critical spring as a person runs. In apes and chimpanzees, the same tendons are much shorter, says Lieberman, and don’t offer the same kind of spring-loading action.

Then there is the gluteus maximus — the unusually large muscle humans carry at their rear. Why such bulk in back? Lieberman says it’s for running and, again, this feature is less pronounced in our ancient evolutionary ancestors.

“When we walk, we barely use the gluteus maximus,” he said. “As soon as you start running, it plays a vital role to keep you from falling — it stabilizes your trunk.”

Other features the authors list that help us run include the arches in our feet, which offer spring in our step, and broad surface areas of our joints, which help distribute the shock of impact from running — at least enough for early humans, who didn’t run on pavement and who never lived much longer than 40 years.

The upper body, meanwhile, carries its own made-for-running designs, including wide shoulders — good for swinging arms from for balance as we stride — and lighter forearms that are easy to move back and forth. Even our heads are equipped for running, they say, as a large ligament stretching from our spines to the back of our heads acts to dampen the oscillation of our heads as we trot along.

Finally, our ability to sweat is unmatched with our estimated 3 million sweat glands. Couple that with the fact that we aren’t very furry and you have a cool, running machine.

### **Jogging for Supper**

Bernd Heinrich, a world record holder in the ultra marathon and biologist at the University of Vermont in Burlington, says the authors’ points make sense.

“Most of us don’t do much running so it may not feel natural, but it feels natural to me,” he said. “Not much

*cont. page 5*



**Dean Karnazes And Friends  
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October 2, 2006**

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May 17, Wed. - Do Run-Run 4 Miler  
May 27, Sat. - Glacier Half Marathon  
June 21, Wed. - Mugwumps 10K  
July 09, Sun. - Boondocks Breakaway 5K  
July 26, Wed. - Masters' 5K / 10K  
Aug.20, Sun. - Humpy's Marathon / Half / 5K  
Oct. 07, Sat. - BBNC Octoberfest 5K / 10K

**Editor's Note:**

In addition to local running news about recently completed races, upcoming races and special events and issues, the *Finish Line* will attempt to provide one or two relevant *Running Science & Sports Medicine* articles in each of this year's newsletters, provided there is available space.

Readers are encouraged to provide feedback, suggestions and running-related photos.

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