UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

JACOB GUNVALSON, CHERI and JOHN GUNVALSON as Guardians for Jacob Gunvalson, and CHERI and JOHN GUNVALSON, Individually,	:	
Plaintiffs,	:	District of New Jersey Index No. 08-cv-3559
- against -	:	
PTC THERAPEUTICS, INC.,	:	
Defendants.	:	

DECLARATION OF RICHARD FINKEL, M.D.

I, RICHARD FINKEL, M.D. pursuant to 28 U.S.C. § 1746, declare as follows:

1. I am an attending physician and Director, Neuromuscular Program, at the Children's Hospital of Philadelphia in Philadelphia, Pennsylvania ("CHOP"). I submit this declaration in connection with defendant PTC Therapeutics, Inc.'s ("PTC") opposition to plaintiffs' Motion for a Preliminary Injunction in the above-captioned action.

2. I make this declaration on the basis of my personal knowledge.

3. Beginning in 2005, I was the "principal investigator" for the Phase 2a clinical trial of PTC's experimental drug, PTC124, which was conducted in three locations. The Phase 2a clinical trial was only open to subjects who have Duchenne muscular dystrophy ("DMD") as a result of a genetic "nonsense mutation." The primary purpose of the Phase 2a clinical trial was to test for proof of concept for the drug by assessing muscle dystrophin expression – *i.e.*, the

amount of dystrophin present in muscle tissue – in response to treatment with PTC124 for a period of 28 days.

4. I understand that plaintiffs claim that Jacob Gunvalson was eligible to participate in the Phase 2a clinical trial but that, prior to its commencement, I told them not to take Jacob off his then-current treatment, Gentamicin, and not to enroll him in the Phase 2a clinical trial. That is inaccurate.

5. I first recall speaking with Mrs. Gunvalson several weeks after the Phase 2a clinical trial began, not before, about whether her son could be enrolled in the trial. She told me orally that Jacob had been diagnosed with DMD and was being treated with another drug called Gentamicin. I asked her to send me Jacob's medical records and advised her that, if he was eligible under the Phase 2a protocol, I would have him screened for the Phase 2a clinical trial.

6. Mrs. Gunvalson told me that she believed that Jacob was responding well to Gentamicin and that she had concerns about discontinuing the Gentamicin to receive PTC124 for only 28 days in the Phase 2a clinical trial. The protocol for the Phase 2a clinical trial required subjects to be off all other medications for three months before they could begin taking PTC124.

7. As an ethical matter, I could not advise Mrs. Gunvalson to discontinue a treatment that she believed was producing positive results for her son when we had no evidence that PTC124 was safe, no evidence that it was effective, and no expectation that it would benefit Jacob to be on PTC124 for only 28 days in a trial that was testing for proof of concept, not efficacy. I told Mrs. Gunvalson that if she believed that Gentamicin was helping her son, it would be a mistake for her to take him off medication that was working in order to participate in a 28-day trial for a treatment that may not help, might not be safe, and was not expected to provide its subjects with any clinical benefit.

8. Mrs. Gunvalson sent me portions of Jacob's medical files in late 2006. When I reviewed those records, I determined that he was not, in any event, eligible to participate in the Phase 2a clinical trial.

9. First, those records showed that Jacob had Becker muscular dystrophy ("BMD"), and not DMD as Mrs. Gunvalson had told me. Attached hereto are copies of portions of records I was furnished from Dr. Parkin, Jacob's pediatrician, stating that Jacob has BMD, not DMD. BMD is a less aggressive form of muscular dystrophy than DMD, in which patients produce more significant amounts of dystrophin than their DMD counterparts. Under the protocol for the Phase 2a clinical trial, patients with BMD were not eligible to participate.

10. Second, Jacob's records showed some evidence of impaired kidney function and some evidence of cardiac problems – a "racing heart." I would have excluded Jacob from the Phase 2a clinical trial based on both of those risks even if he had DMD, rather than BMD.

11. After concluding that Jacob was not eligible, I advised Mrs. Gunvalson that he would not be accepted into the Phase 2a clinical trial.

I declare under penalty of perjury that the foregoing is true and correct.

Richard Finkel, M.D.

Executed this 12th day of August, 2008.

HENNEPIN COUNTY MEDICAL CENTER
DEPARTMENT OF PATHOLOGY
701 PARK AVENUE SOUTH
MINNEAPOLIS, MN 55415
612-347-3985

Surgical Pathology Report

Service: NFA/250

Date Obtained: 01/13/98
Accessioned Date: 01/15/98
Physician: STEPHEN A SMITH,M.D.
cc: JOHN PARKIN,M.D.
JOHN T MACDONALD,M.D.

Med Rec #: 1138093
Patient: JACOB GUNVALSON
DOB: 10/05/91 (Age: 6) Sex: M

Accession #: S98-219

Specimen:

RT GASTROCNEMIUS MUSCLE BIOPSY

Clinical History:

This specimen is submitted from a 6-year-old with hypotonia, proximal muscle wasting and weakness, mild calf hypertrophy, partial Gowers sign, less than antigravity neck flexor weakness, and CK of 13,000 (repeat = 10,662).

Gross Description:

Needle biopsy samples of tissue are grouped together measuring 0.5 X 0.5 X 1.0 cm and are submitted in a saline soaked gauze for snap freezing for light microscopy and histochemistry. An additional needle biopsy core measuring 0.3 cm in most dimensions is submitted in 3% glutaraldehyde for ultrastructural study.
SAS/dls 01/15/98

Microscopic Description:

The H & E, Trichrome, and Oil-Red-O stained sections show muscle fibers presenting transversely. Muscle fibers vary from 5 to 50 microns in diameter. Necrotic fibers are present. Groups of basophilic fibers with enlarged nuclei are noted. Small numbers of mononuclear inflammatory cells are found in several areas. Invasion of muscle fibers by mononuclear inflammatory cells is not present. Intramuscular lipid is not increased. There is a mild to moderate increase in endomysial and perimysial connective tissues. Vessels are intact.

Caryolyn Buzin – City of Hope
626 – 301-5378

HENNEPIN COUNTY MEDICAL CENTER
SURGICAL PATHOLOGY
Minneapolis, MN 55415

Med Rec #: 1138093
Patient: JACOB GUNVALSON
Accession #: S98-219.

FINAL DIAGNOSIS:

RIGHT GASTROCNEMIUS MUSCLE BIOPSY - PROBABLE BECKER DYSTROPHINOPATHY.

** Report Electronically Signed Out **
STEPHEN A. SMITH, M.D.

dls 01/15/98

Diagnosis Comment:

Light microscopy shows early onset muscular dystrophy, and the presence of reduced dystrophin immunoreactivity is compatible with Becker dystrophinopathy.

ELECTRON MICROSCOPY

Date Ordered: 01/13/98
Final Date: 01/15/98

Description:
Semi-thin Stained Sections:

The MAB stained sections show fiber size variation, necrotic fibers, regenerating fibers, fibrosis, and inward migration of muscle nuclei.

Interpretation:

The plastic embedded sections show evidence for early onset muscular dystrophy.

IMMUNOHISTOCHEMISTRY

Date Ordered: 01/14/98
Final Date: 01/15/98

Description:
Using monoclonal antibodies (DYS 1, DYS 2, and DYS 3) to detect dystrophin and adhalin with peroxidase as a marker shows reduced immunoreactivity over the sarcolemma with DYS 1, representing the mid rod domain, compared to control. There is no immunoreactivity with DYS 3 representing exons 10 to 12 and minimal immunoreactivity over several fibers with DYS 2, representing the C-terminus. Adhalin immunoreactivity is reduced

sequencing should exon 5

Page 2 Continued on Next Page

HENNEPIN COUNTY MEDICAL CENTER
SURGICAL PATHOLOGY
Minneapolis, MN 55415

Med Rec #: 1138093
Patient: JACOB GUNVALSON
Accession #: S98-219

IMMUNOHISTOCHEMISTRY (continued)
compared to control.

Interpretation:

Reduced immunoreactivity for dystrophin over the sarcolemma is indicative of Becker dystrophinopathy. Mid-rod domain immunoreactivity is reduced compatible with a truncated dystrophin protein. Only a few fibers show residual immunoreactivity with DYS 2, and no fibers have immunoreactivity with DYS 3. The reduced immunoreactivity for adhalin is compatible with dystrophinopathy.

← non functional dystrophin

HISTOCHEMISTRY

Date Ordered:
Final Date: 01/15/98

Description:
The MATP reacted sections identify type I and II fibers without fiber type grouping. In some areas a few intermediate fibers are also noted. Oxidative NADH, SDH, and cytochrome oxidase activities are maintained.

Interpretation:

The muscle histochemistry shows fiber size variation of both type I and type II muscle fibers.

STEPHEN A. SMITH, M.D.
Physician No.: 011130

FDO

JACOB P GUNVALSON
Male DOB: 10/05/1991 MRN: 7331846

02/05/2002 - Transcription: Report Type: Clinic Chart Note
Provider: John R Parkin MD
Location of Care: MeritCare Clinic Bemidji Pediatrics

Report Type: Clinic Chart Note
Clinic Code/Hosp Service: PEDBJ
Medical Record Number: 0733184-6

Jacob is here today to start a trial of Gentamycin infusions. He has Becker's muscular dystrophy which has been slowly progressive over the last few years and he is becoming increasingly affected by it. His mother has extensively reviewed current medical literature and I also have reviewed a number of available articles regarding treatment options at this time. Basically, there are no proven effective therapies at present. Experimental trials suggest that Gentamycin may be effective in some affected people with stop-code on, such as Jacob. This has been discussed in detail and literature has been reviewed with his mother. Although this is an off label use for this medication, Gentamycin has a well established safety record for many years. Some experimental protocols were reviewed and we came up with a plan, which is very similar to a study going on currently at Ohio State. Copies of this are included in Jacob's records at this time. In view of lack of alternative treatment, it seems most appropriate to try this and hopefully stop the progression of Jacob's disease. Mother is fully aware of possibility of side effects and this is off labeled usage. Jacob is also willing to undergo treatment at this time.

PE: Jacob is happy and talkative today after his infusion. ENT - negative. Neck - no nodes. Lungs - clear. Heart - no murmur, rhythm regular. Abdomen - unremarkable. Extremities - he has obvious decreased musculature. He has minimal thoracic humping noted at this time and is showing some increasing lumbar lordosis.

RX: Gentamycin 7.5 mg/kg were given IV over 1 hour without adverse SX. He had a slight temperature rise during the procedure, but peak TEMP was only 99. We will repeat infusion in 1 week and continue to monitor for toxicity.

John R Parkin, M.D.

cc: Bemidji Data Entry
Route 900

Job ID/Trans ID: 4078065/MRL

D: 02/06/2002
T: 02/07/2002 10:06 AM

JACOB P GUNVALSON
Male DOB: 10/05/1991 MRN: 733184

09/23/2002 - Transcription: Report Type: Clinic Chart Note
Provider: John R Parkin MD
Location of Care: MeritCare Clinic Bemidji Pediatrics

Report Type: Clinic Chart Note
Clinic Code/Hosp Service: PEDBJ
Medical Record Number: 0733184-6

Gunvalson, Jacob
Date of Service: 09/23/2002

STARTED 1/02 2/week

Jacob is in for FOLLOWUP on his treatments. He has now been on the gentamicin for 9 months. He is receiving infusions twice weekly. His laboratory studies are being monitored regularly and have been consistently unremarkable. His creatinine has risen slightly to .4, but this may well be a reflection of increasing muscle mass. He is not having any side effects from the therapy and overall seems to be doing well. His physical therapist rating scores have been stable, but there numerous antidotal reports and observation of actual improved function. He appears to be more self-confident in school activities and is participating in more physical activities that he has in the past. At home, his family notices similar things. He has not had any significant illnesses during this time.

PHYSICAL EXAM: ENT - Negative. Lungs - clear. Heart - rhythm regular, no murmur noted. Abdomen - unremarkable. Extremities - I believe he does show signs of increased muscular mass over the last few months. This does not appear to be pseudohypertrophy. He does have an abnormal gait and increased lordosis, although the lordosis may actually be somewhat improved from my previous memories.

✓ IMPRESSION: Becker's muscular dystrophy.

PLAN: His experimental protocol certainly seems to be stabilizing his condition and some improvement is likely being observed. It is well tolerated at this time and no changes appear to be necessary. Mother is very much aware that this is experimental and at this same time she is very enthusiastic about the results and wishes to continue with it.

John R Parkin, M.D.

cc: Bemidji Data Entry
Route 900

Job ID/Trans ID: 5106140/MRL

NEUROLOGICAL: Generalized muscle weakness. No convulsions or loss of consciousness. No headaches.
SKIN: No obvious active lesions. No cyanosis.
EYES: Apparent normal vision.
EARS, NOSE, AND THROAT: Apparent normal hearing.

ALLERGIES: Report of allergy to halothane. No other drug allergies.

PAST MEDICAL HISTORY: As mentioned above, history of Becker muscular dystrophy.

FAMILY HISTORY: No family history of congenital heart disease. No other family members with muscular dystrophies.

SOCIAL HISTORY: Jacob lives with his family. He does well in school.

PHYSICAL EXAMINATION: Weight 39.5 kg. Height 139.5 cm. Heart rate 88 beats per minute. Respiratory rate 18 per minute. Blood pressure 100/70.

Cardiac examination is quite unremarkable. There are no obvious pathologic murmurs noted. He is well perfused. Distal pulses are excellent. There was no cyanosis or edema.

The lung fields are well ventilated and clear. There are no rales or wheezing noted. The abdomen is benign. There is no organomegaly. Skin turgor is normal. HEENT is normal. There are no dysmorphic features noted. The generalized muscle weakness is, of course, noted.

LAB/X-RAY/OTHER TESTS:
1. A repeat echocardiogram, obtained today, is basically unchanged from his previous studies. Left and right ventricular systolic function remains normal. The estimated left ventricular ejection fraction is 64%. There is mild tricuspid valve insufficiency. All cardiac chambers appear normal in size.
2. His electrocardiogram shows sinus rhythm and normal precordial voltages with normal conduction intervals.

IMPRESSION: Becker muscular dystrophy, stable cardiac status.

It is my impression that Jacob remains quite stable from a cardiac standpoint. I am happy to report that his left ventricular ejection fraction remains normal.

We will see Jacob back for his routine followup and repeat electrocardiogram and echocardiogram in 2 years. Of course, we will see him earlier if there is any significant clinical change or specific worry.

From a cardiac standpoint, Jacob should be allowed normal activity. Antibiotic prophylaxis for bacterial endocarditis is not required.

Thank you so much for allowing us to participate in the care your patient. Please feel free to call at any time if there is any question or concern in regard to his cardiac status.

Sincerely,

Rodrigo Rios, M.D.

Job ID/Trans ID: 447994/CRT9

D: 10/18/2004
T: 10/19/2004 10:03 AM

Signed by Rodrigo Rios MD on 10/19/2004 at 10:36 AM
Signed by John R Parkin MD on 10/19/2004 at 2:35 PM

JACOB P GUNVALSON
Male, DOB: 10/05/1991 MRN: 7331846

08/25/2006 - Transcription: 08/25/2006
Provider: Rodrigo Rios MD
Location of Care: MeritCare Clinic Pediatric Cardiology

08/25/2006

John R Parkin, M.D.
Route 915
Bemidji Pediatrics

RE: JACOB GUNVALSON
MR#: 0733184-6

PEDIATRIC CARDIOLOGY CONSULTATION:

Dear Dr. Parkin:

Thank you so much for sending us your patient, Jacob Gunvalson, for followup cardiology consultation. He was seen at the Bemidji Outreach Clinic on August 23, 2006.

CHIEF COMPLAINT:
1. Becker muscular dystrophy.
2. Recent episode of supraventricular tachycardia.

HISTORY OF PRESENT ILLNESS: Jacob, as you well know, is an almost 15-year-old boy with Becker muscular dystrophy. He recently complained of perceived tachycardia/palpitations, and you issued him a transtelephonic event recorder, which was quite useful in documenting a brief episode of supraventricular tachycardia. Because of this, we started him on oral metoprolol 25 mg once a day. I am happy to learn that he has had no further tachycardia episodes since starting his beta blocker. As you recall, he is also on lisinopril 5 mg once a day.

Jacob has never had any symptomatology whatsoever suggestive of cardiac compromise and as you well know, his past echocardiograms have demonstrated normal left and right ventricular systolic function with no evidence of significant cardiomyopathy.

His muscle weakness seems stable as well. He remains on his therapeutic protocol, including intravenous gentamicin.

REVIEW OF SYSTEMS:
CARDIOVASCULAR: No further sustained tachycardia. No chest pain, cyanosis, or syncope.
CONSTITUTIONAL: Stable weight, no fever.
RESPIRATORY: No obvious dyspnea. No chronic cough or wheezing.
GASTROINTESTINAL: Stable bowel movements. No vomiting.
GENITOURINARY: Apparent normal urine output.
MUSCULOSKELETAL: No joint swelling or deformities, no clubbing.
NEUROLOGIC: Stable generalized muscle weakness. No convulsions, headaches, or loss of consciousness.
PSYCHOSOCIAL: Quite pleasant and in good spirits.
SKIN: No obvious active lesions. No cyanosis.
EYES: Apparent normal vision.
ENT: Apparent normal hearing.

ALLERGIES: Report of allergy to halothane.

PAST MEDICAL HISTORY:
1. Becker muscular dystrophy, on gentamicin protocol.
2. Recent episode of supraventricular tachycardia.

FAMILY HISTORY: No family history of congenital heart disease or muscular dystrophies.

SOCIAL HISTORY: Jacob lives with his family. He is here with his mother today.

PHYSICAL EXAMINATION:
VITAL SIGNS: Blood pressure 112/68. Heart rate 112 beats per minute. Respiratory rate 22 per minute.
CARDIAC: Quite unremarkable. There are no obvious pathologic murmurs noted. His distal perfusion and distal pulses are excellent. There is no edema or cyanosis.
LUNGS: The lung fields are well ventilated and clear, there are no obvious rales or wheezing noted.
ABDOMEN: Soft and nontender, there is no organomegaly.
SKIN: Turgor is normal.

We obtained a repeat echocardiogram today, which is basically unchanged from his previous studies. Left and right ventricular systolic function remains normal. The estimated left ventricular ejection fraction is 70%. Tissue Doppler E/E' ratio remains normal at 4.8.

His recent electrocardiograms show sinus rhythm without evidence of preexcitation.

IMPRESSION: It is my impression that Jacob remains quite stable from a cardiac standpoint.

We will leave him on his present metoprolol dose and of course increase this in case of breakthrough tachycardia events. If his tachycardia would persist and remain problematic in regard to control, he should be a good candidate for formal electrophysiology study and possible radiofrequency ablation procedure. Hopefully of course he will not have more tachycardia events. I will increase his oral lisinopril to 10 mg once a day.

I would like to see Jacob back for routine followup in 1 year. A repeat echocardiogram and electrocardiogram will be obtained at that time. Of course, I would be happy to see him earlier if there is any significant clinical change or specific concerns.

Thank you so much for allowing us to participate in the care of your patient, please feel free to call at any time if there is any question or concern in regard to his cardiac status.

Sincerely,

Rodrigo Rios, M.D.

cc: John R Parkin, M.D.
Route 915
Bemidji Pediatrics

Job ID/Trans ID: 3358559/WJK

D: 08/25/2006
T: 08/27/2006 11:10 AM

Signed by Rodrigo Rios MD on 09/06/2006 at 9:45 AM
Signed by Raquel Ruden, Release of Information on 09/07/2006 at 9:29 AM
Signed by John R Parkin MD on 09/07/2006 at 10:50 AM
Signed by John R Parkin MD on 09/08/2006 at 2:44 PM