

The opinion in support of the decision being entered today is not binding precedent of the Board.

Paper 53

By: Trial Section Merits Panel
Box Interference
Washington, D.C. 20231
Tel: 703-308-9797
Fax: 703-305-0942

Filed: December 3, 2002

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

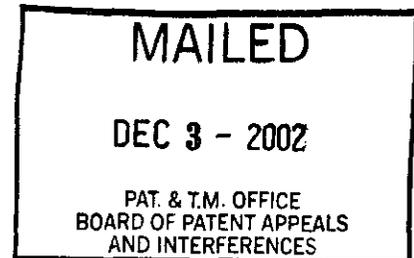
IMRE KOVESDI, DOUGLAS E. BROUGH,
DUNCAN L. MCVEY, JOSEPH T. BRUDER
and ALENA LIZONOVA

Junior Party,
Application 08/258,416

v.

WEI-WEI ZHANG
and JACK ROTH

Senior Party,
Application 08/222,285



Patent Interference No. 104,827 (CAS)

Before: TORCZON, SPIEGEL and TIERNEY, Administrative Patent Judges.

SPIEGEL, Administrative Patent Judge.

MEMORANDUM OPINION and FINAL JUDGMENT
(Decision on preliminary motions)

I. Introduction

Zhang has filed preliminary motions 1-3 to substitute the counts (Paper 25), to add proposed claims to correspond to the proposed substitute counts (Paper 26), and to designate all of Zhang's pending claims as not corresponding to any of the proposed substitute counts (Paper 27), respectively. Kovesdi has filed preliminary motions 1-4 seeking judgment that Zhang's pending claims are unpatentable under 35 U.S.C. § 103 (Paper 30), 35 U.S.C. § 112, first paragraph (lack of enablement (Paper 31) and lack of written description (Paper 32)) and 35 U.S.C. § 112, second paragraph (indefinite), respectively. Kovesdi has also filed preliminary motion 5 to designate Kovesdi claims 39, 45, 48, 51 and 94 as not corresponding to any of the present counts (Paper 34) and contingent upon its grant, preliminary motion 6 to amend Kovesdi claim 19 to delete the subject matter of claims 39, 45, 48, 51 and 94 (Paper 35).

A threshold issue arose as to whether an interference-in-fact exists between the involved claims of Kovesdi and Zhang. Kovesdi and Zhang were authorized to file a joint Rule 633(b) motion for no interference-in-fact and further prosecution was suspended pending a decision on whether the currently involved claims of Kovesdi and Zhang interfere-in-fact (Paper 51). Kovesdi and Zhang filed a joint Rule 633(b) motion for no interference-in-fact, arguing that "the limitation of Party Zhang claims 1-10, 15-23 and 28-51, that all of E2 coding region (both the E2A and E2B early transcription regions) be deleted from the adenoviral genome and be provided for in the

corresponding helper cell lines, is not found in the Party Kovesdi claims" (Paper 52, p. 10).

We grant the joint Rule 633(b) motion and dismiss the remaining preliminary motions without prejudice.

II. Findings of fact

The following findings of fact are supported by a preponderance of the evidence.

Junior party

F1. The junior party is Imre Kovesdi, Douglas E. Brough, Duncan L. McVey, Joseph Bruder and Alena Lizonova (**Kovesdi**).

F2. Kovesdi is involved in the interference on the basis of U.S. application 08/258,416 (Kovesdi '416), filed June 10, 1994.

F3. The real party in interest is GENVEC.

Senior party

F4. The senior party is Wei-Wei Zhang and Jack Roth (**Zhang**).

F5. Zhang is involved in the interference on the basis of U.S. application 08/222,285 (Zhang '285), filed April 4, 1994.

F6. The real party in interest is BOARD OF REGENTS, THE UNIVERSITY OF TEXAS SYSTEM.

The interference

F7. The subject matter of the interference is defined by four Counts.

F8. Count 1 (Paper 1, p. 5) reads:

Count 1

The adenoviral vector of claim 57 of the '416 Kovesdi application.
or
The adenoviral vector of claim 72 of the '416 Kovesdi application.
or
The adenovirus vector of claim 28 of the '285 Zhang application.

F9. Count 2 (Paper 1, p. 5) reads:

Count 2

The cell line of claim 41 of the '416 Kovesdi application.
or
The recombinant helper cell of claim 17 of the '285 Zhang application
which supports replication of the adenovirus construct of claim 15.

F10. Count 3 (Paper 1, p. 5) reads:

Count 3

The adenoviral vector of claim 59 of the '416 Kovesdi application.
or
The adenoviral vector of claim 74 of the '416 Kovesdi application.
or
The adenoviral vector of claim 31 of the '285 Zhang application.

F11. Count 4 (Paper 1, p. 5) reads:

Count 4

The cell line of claim 43 of the '416 Kovesdi application.
or
The recombinant helper cell of claim 17 of the '285 Zhang application
which supports replication of the adenovirus construct of claim 1.

F12. Kovesdi '416 claim 36 reads:

A cell line that complements *in trans* an adenoviral vector having an adenoviral genome, said genome being deficient in one or more essential gene functions of each of two or more adenoviral early regions selected from the group consisting of the E1, E2A, and E4 regions of said

adenoviral genome, wherein nucleic acid sequences in said cell line encoding products complementing for said essential gene functions of said E2A and E4 regions of the adenoviral genome are operably linked to inducible promoters or repressible promoters, and wherein said cell line is derived from HEK 293 cells or A549 cells.

F13. Kovesdi '416 claim 41 reads:

The cell line of claim 36, wherein said vector is deficient in one or more essential gene functions of at least the E1 and E2A regions of the adenoviral genome.

F14. Kovesdi '416 claim 43 reads:

The cell line of claim 36, wherein said vector is deficient in one or more essential gene functions of at least the E2A and E4 regions of the adenoviral genome.

F15. Kovesdi '416 claim 57 reads:

An adenoviral vector that requires, for replication, complementation *in trans* of one or more essential gene functions of each of at least the E1 and E2A regions of the adenoviral genome, which vector has been prepared using the cell line of claim 41.

F16. Kovesdi '416 claim 59 reads:

An adenoviral vector that requires, for replication, complementation *in trans* of one or more essential gene functions of each of at least the E2A and E4 regions of the adenoviral genome, which vector has been prepared using the cell line of claim 43.

F17. Kovesdi '416 claim 68 reads:

An adenoviral vector that is deficient in one or more essential gene functions in each of two or more adenoviral early gene regions selected from the group consisting of E1, E2A, and E4 regions of the adenoviral genome, wherein said vector comprises one or more functional early or late region genes.

F18. Kovesdi '416 claim 72 reads:

The adenoviral vector of claim 68, wherein said vector is deficient in one or more essential gene functions in at least the E1 and E2A regions of the adenoviral genome.

F19. Kovesdi '416 claim 74 reads:

The adenoviral vector of claim 68, wherein said vector is deficient in one or more essential gene functions in at least the E2A and E4 regions of the adenoviral genome.

F20. Zhang '285 claim 1 reads:

An adenovirus vector construct, wherein all of the E2 coding region has been deleted from the adenovirus genome and heterologous DNA is inserted in its place, but specifically excluding an adenovirus vector from which each of the E1, E2, E3 and E4 coding regions have been deleted.

F21. Zhang '285 claim 15 reads:

An adenovirus vector construct consisting essentially of map units 0-1.25 of the adenovirus 5 genome, at least 7.5 kb of heterologous DNA and map units 84.5-100 of the adenovirus genome.

F22. Zhang '285 claim 17 reads:

A recombinant helper cell, wherein said cell expresses adenovirus E2a and E2b and supports and replication of the adenovirus vector construct of claim 1 or 15.

F23. Zhang '285 claim 28 reads:

The adenovirus vector construct of claim 1, wherein only the E2 region is deleted.

F24. Zhang '285 claim 31 reads:

The adenovirus vector construct of claim 1, wherein the E2 and E4 regions are deleted.

F25. The claims of the parties are:

Kovesdi '416	19-26, 36-87
Zhang '285	1-10, 15-23, 28-51 ¹

F26. The claims of the parties which correspond to Count 1 are:

Kovesdi '416	20-21, 24-26, 52, 56-58, 68-69, 72-73, 78-79, 84-87
Zhang '285	1-10, 15-16, 28-30, ² 33, 35-51

F27. The claims of the parties which correspond to Count 2 are:

Kovesdi '416	19, 36, 41-42, 89-90, 95
Zhang '285	17-23

F28. The claims of the parties which correspond to Count 3 are:

Kovesdi '416	20-21, 24-26, 52-87
Zhang '285	1-10, 31-32, 34-51

F29. The claims of the parties which correspond to Count 4 are:

Kovesdi '416	19, 36-41, 43-51, 89-90, 92-95
Zhang '285	17-23

F30. The claims of the parties which do not correspond to any of Counts 1 through 4, and therefore are not involved in the interference, are:

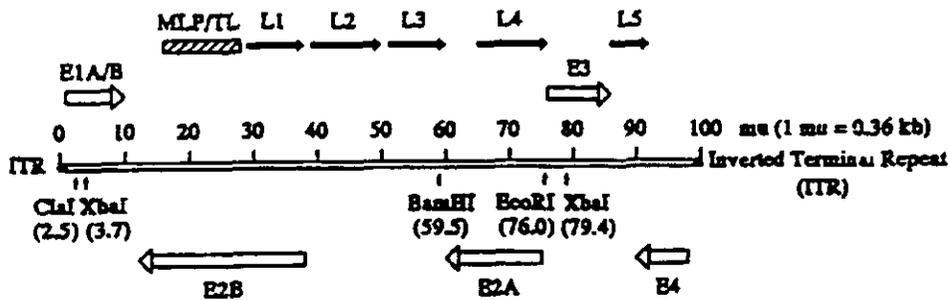
Kovesdi '416	22-23, 91
Zhang '285	none

F31. Figure 1 in Zhang '285 (shown below) is said to describe the structure of the Ad5 genome. The genome is divided into 100 map units (mu). The open arrows represent early (E) transcription and the

¹ According to the Examiner, claims 35-48 of Zhang '285 are unpatentable.

² Due to an inadvertant typographical error, The NOTICE DECLARING INTERFERENCE incorrectly listed claims 28-39 rather than 28-30 (Paper 1, p. 6). Both claims 29 and 30 require deletion of the E2 region.

solid arrows represent late (L) transcription. The direction of transcription is indicated by arrows. Gaps in arrows indicate intervening sequences. The hatched box represents location of major late promoter and tripartite leader sequences (MLP/TL). The numbers in parenthesis indicate the map units. [Ex 1001, p. 17, ll. 24-31.]



F32. Zhang '285 describes

Adenoviruses ...[as] double-stranded DNA viruses with a linear genome of approximately 36 kb. A simplified map of the adenovirus type 5 (Ad5) genome with a few key landmarks is diagrammed in Figure 1. Both ends of the viral genome contain 100-200 base pair (bp) inverted terminal repeats (ITR), which are *cis* elements necessary for viral DNA replication and packaging. The early (E) and late (L) regions of the genome that contain different transcription units are divided by the onset of viral DNA replication. The E1 region (E1A and E1B) encodes proteins responsible for the regulation of transcription of the viral genome and a few cellular genes. The expression of the E2 region (E2A and E2B) results in the synthesis of the proteins for viral DNA replication. These proteins are involved in DNA replication, late gene expression, and host cell shut off (Renan, 1990). The products of the late genes, including the majority of the viral capsid proteins, are expressed only after significant processing of a single primary transcript issued by the late major late promoter (MLP). The MLP (located at 16.8 m.u.) is particularly efficient during the late phase of infection, and all the mRNAs issued from this promoter possess a 5' tripartite leader (TL) sequence which makes them preferred mRNAs for translation. [Ex 1001, p. 20, l. 28 - p. 21, l. 14.]

F33. According to Zhang '285,

The surprising discovery made by the present inventors that the adenoviral E2 regions could be expressed in a helper cell and would be able to complement adenoviral vectors with the corresponding regions deleted led to this invention. Before the present invention, complementation of the E2 regions of the adenoviral genome was not thought to be possible because of their size and complexity. For example, the ... E2B region, which is the largest of the early gene regions comprising about 10 kb, also comprises the major late promoter/tripartite leader region as well as the L1 gene in the reverse orientation. The tripartite leader region is a complex region of untranslated DNA that directs the cutting and splicing of the viral mRNA to direct the entire late life cycle of the virus. It is this complexity in a region that overlaps the E2B region that led to the acceptance in the art that E2B could not be deleted from adenoviral vectors. [Ex 1001, p. 8, l. 23 - p. 9, l. 5.]

F34. Louis Zumstein, testifying for party Zhang, stated

I am the Director of Research at Introgen Therapeutics, Inc. ("Introgen"), licensee of the above captioned application. I have a Ph.D. in Biochemistry from Harvard University. My research specialties include gene therapy, adenoviral gene therapy, RNA processing and cancer biology. ... [Ex 1006, ¶ 1.]

F35. Dr. Zumstein further testified that the E2A and E2B coding regions encode distinct protein sets with distinct functions, e.g., a protein that functions as a single-stranded DNA binding protein (E2A) versus a terminal protein precursor and a DNA polymerase which function to initiate DNA synthesis and replication of the Ad genome, respectively (E2B) (Ex 1006, ¶¶ 3-5).

F36. In Dr. Zumstein's "opinion as one skilled in the art, an adenovirus including a deletion in all of the E2 region is a separate and distinct undertaking as compared to an adenovirus with a deletion of the E2A coding region and not of the E2B coding region" (Ex 1006, ¶ 9).

Other findings of fact follow below.

III. Joint motion for no interference-in-fact

Nitz v. Ehrenreich, 537 F.2d 539, 543, 190 USPQ 413, 417 (CCPA 1976) stated that

[t]he materiality of a limitation is directly related to its significance within the invention as a whole. Cf. *In re Friette*, 58 CCPA 799, 436 F.2d 496, 168 USPQ 368 (1971). In *McCabe v. Cramblet*, supra, which we quoted with favor in *Brailsford v. Lavet*, supra, this court stated:

The first question for consideration is whether there is any patentable distinction between the counts here involved and said claims 1 to 5 of appellant's patent; or, in other words, do the claims of said patent and the counts of the interference call for the same invention? ... the test is whether the counts of the interference and the claims of the patent call for the same invention. ...

Kovesdi and Zhang argue that at least one material limitation exists in all of the involved Zhang claims that renders them patentably distinct from any of the involved Kovesdi claims, i.e., "the limitation of Party Zhang claims 1-10, 15-23 and 28-51, that all of E2 coding region (both the E2A and E2B early transcription regions) be deleted from the adenoviral genome, and be provided for in the corresponding helper cell lines, is not found in the Party Kovesdi claims" (Paper 52, p. 10).

As set forth in 37 CFR § 1.601(n),

[i]nvention "A" is the *same patentable invention* as an invention "B" when invention "A" is the same as (35 U.S.C. 102) or is obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A". Invention "A" is a *separate patentable invention* with respect to invention "B" when invention "A" is new (35 U.S.C. 102) and non-obvious (35 U.S.C. 103) in view of invention "B" assuming invention "B" is prior art with respect to invention "A".

A. Claims of Count 1

F37. All of the Zhang claims designated as corresponding to Count 1 recite an adenoviral vector in which all of the E2 coding region has been deleted, i.e., the E2B coding region is missing as well as the E2A coding region.

F38. All of the Kovesdi claims designated as corresponding to Count 1 recite an adenoviral vector deficient in two or more of the E1, E2A and E4 regions and are silent with respect to deletions in the E2B region.

F39. None of the Kovesdi claims corresponding to Count 1 require all of the E2 (i.e., E2B as well as E2A) coding region to be deleted.

F40. Thus, none of the Kovesdi claims corresponding to Count 1 anticipate any of the Zhang claims corresponding to Count 1.

Further, based on the above, none of the Kovesdi claims corresponding to Count 1 would have rendered any of the Zhang claims corresponding to Count 1 obvious because the Kovesdi claims do not suggest deleting the entire E2B coding region in addition to the E2A coding region in view of the different sets of encoded proteins and protein functions involved as described in Zhang '285 and testified to by Dr. Zumstein. To wit, deleting the E2B coding region would have also deleted the MLP/TL and L1 gene regions present in reverse orientation to the E2B gene region. Thus, an adenoviral vector requiring complementation of one or more essential gene functions of the E2A gene region for propagation is structurally and functionally very different from an adenoviral vector requiring complementation of one or more essential gene

functions of both the E2A and the E2B gene regions for propagation. In other words, in our opinion, deletion of the E2B coding region, as required by Zhang claims 1-10, 15-16, 28-30, 33, and 35-51, is a material limitation which patentably distinguishes Zhang's claims from Kovesdi claims 20-21, 24-26, 52, 56-58, 68-69, 72-73, 78-79 and 84-87, which do not recite or require deletion of the E2B coding region.

B. Claims of Count 2

F41. The subject matter of Count 2 is directed to cells (i.e., complementing cell lines or recombinant helper cells) that allow the replication (i.e., propagation or production) of the adenoviral vectors of Count 1.

F42. All of the Zhang claims designated as corresponding to Count 2 recite a recombinant helper cell which complements defects in both the E2A and E2B regions.

F43. All of the Kovesdi claims designated as corresponding to Count 2 recite a cell which complements defects in the E2A region, but do not recite complementation of any functions encoded by the E2B region.

Therefore, for the reasons given above with respect to Count 1, none of Kovesdi claims 19, 36, 41-42, 89-90 or 95 anticipate or render obvious any of Zhang claims 17-23. In particular, a complementing cell line which supports replication of an adenoviral vector in which all of the E2 coding region has been deleted must contain DNA encoding for not only E2A proteins but also for E2B proteins and the MLP/TL and L1 proteins encoded in reverse orientation to the E2B gene region. In other words, supporting replication of an adenovirus wherein all of both E2A and E2B coding regions

have been deleted, as required by Zhang claims 17-23, is a material limitation which patentably distinguishes the cells of Zhang's claims from the cells of Kovesdi claims 19, 36, 41-42, 89-90 and 90, which do not recite or require cells supporting an E2B-replication defective adenoviral vector.

C. Claims of Count 3

F44. The subject matter of Count 3 is directed to adenoviral vectors in which the E4 region is either deficient in function or deleted in combination with deficiencies or deletions in the E2 region.

F45. All of the Zhang claims designated as corresponding to Count 3 recite an adenoviral vector in which all of the E2 (i.e., both E2A and E2B) coding region is deleted in combination with deletion of the E4 region.

F46. All of the Kovesdi claims designated as corresponding to Count 3 recite an adenoviral vector in which a deficiency in at least one essential gene function of the E4 region is present in addition to a deficiency in at least one essential gene function in the E2A region.

F47. Thus, the distinction between the claims of Kovesdi and Zhang which correspond to Count 3 is that the claims of Kovesdi do not recite a deletion of all of the E2 region, which necessarily includes deletion of the E2B region.

Therefore, for the reasons given above with respect to Count 1, deletion of the E2B coding region, as required by Zhang claims 1-10, 31-32 and 34-51, is a material

limitation which patentably distinguishes Zhang's claims from Kovesdi claims 20-21, 24-26 and 52-87, which do not recite or require deletion of the E2B coding region.

D. Claims of Count 4

F48. The subject matter of Count 4 is directed to complementing cells that allow the replication of the adenoviral vectors of Count 3.

F49. Thus, at least one distinction between the claims of Kovesdi and Zhang which correspond to Count 4 is that the claims of Kovesdi do not recite cells which supports replication of adenoviral vectors having all of their E2 coding region deleted.

Therefore, for the reasons given above with respect to Counts 1-3, supporting replication of an adenovirus wherein all of both E2A and E2B coding regions have been deleted, as required by Zhang claims 17-23, is a material limitation which patentably distinguishes the cells of Zhang's claims from the cells of Kovesdi claims 19, 36-41, 43-51, 89-90 and 92-95, which do not recite or require cells supporting an E2B-replication defective adenoviral vector.

For the above reasons, Kovesdi's and Zhang's joint motion for no interference-in-fact is **granted**.

IV. Remaining preliminary motions

Zhang proposes to add claims 52-84 to the interference to interfere with claims of Kovesdi, wherein proposed claims 53-84 depend, directly or indirectly, from proposed Zhang claim 52 (Zhang preliminary motion 2, Paper 26). Proposed claim 52 recites "[a]n adenovirus vector construct wherein at least part of the E2 coding region has been

deleted from the adenovirus genome ... wherein the deletion causes said adenovirus vector to be replication defective" (emphasis added). Zhang moves to substitute "Proposed Counts 1 to 4" for present Counts 1 to 4 (Zhang preliminary motion 1, Paper 25). "Proposed Counts 1 to 4" would redefine the subject matter in terms of proposed Zhang claims 55, 81, 69 and 84, respectively, while maintaining the current Kovesdi claim alternatives of present Counts 1 to 4. Zhang preliminary motion 3 (Paper 27) requests that all Zhang claims which currently correspond to present Counts 1 to 4 be designated as not corresponding to any of the present Counts 1 to 4. In essence, Zhang preliminary motion 3 is a motion for no interference-in-fact, regardless of its title.

Kovesdi preliminary motion 4 contends that the phrase "E2 coding region" recited in Zhang claims 1-10, 16-23 and 28-51 is indefinite because Zhang '285 allegedly fails to define "E2 coding region," as opposed to "E2 region," either explicitly or implicitly and, therefore, Zhang's claims are unpatentable under 35 U.S.C. § 112, second paragraph (Paper 33). Kovesdi preliminary motion 3 contends that Zhang '285 fails to describe three elements recited in Zhang claims 1-10, 16-23 and 28-51 as required by 35 U.S.C. § 112, first paragraph, i.e., "E2 coding region," "but specifically excluding an adenovirus vector from which each of the E1, E2, E3 and E4 coding regions have been deleted," and "E1, E2, E3 and E4 coding regions" (Paper 32). Kovesdi preliminary motion 1 contends that Zhang claims 1-10, 16, 28, 30 and 35-51 may be unpatentable over the prior art depending upon how the claims are construed, e.g., whether or not any of the non-coding sequences of the E2 region are present

(Paper 30). Kovesdi preliminary motion 1 contends that the guidance and working examples in Zhang '285, coupled with the state of the art, do not enable Zhang claims 17-23 in the manner required by 35 U.S.C. § 112, first paragraph (Paper 31). Kovesdi preliminary motion 5 seeks to designate Kovesdi cell line claims 39, 45, 48, 51 and 94 as not corresponding to any of Counts 1-4, alleging that the limitation "wherein the cell line comprises at least ORF6 and no other ORF of the E4 region of the adenoviral genome" defines a separately patentable invention (Paper 34). Kovesdi preliminary motion 6 is contingent upon grant of Kovesdi preliminary motion 5 and seeks to narrow Kovesdi claim 19 by removing reference to a pSMT/ORF-6 plasmid, which embodiment defines the same subject matter as Kovesdi claims 39, 45, 51 and 94 (Paper 35).

Dismissing the Zhang preliminary motions 1 and 2 and Kovesdi preliminary motions 1-6 without prejudice would allow Zhang to pursue its proposed claims 52-84 before the Examiner, e.g., in a continuing application, and, at a minimum, allow the Examiner to assess Zhang's newly proposed claims for compliance with § 112, first paragraph. In addition, as both Kovesdi and Zhang are applicants, dismissing the remaining preliminary motions would avoid extending the patent term protection of the claims of Kovesdi and Zhang on the basis of the interference. Furthermore, party Zhang would not be estopped for seeking a second interference involving "[a]n adenovirus vector construct wherein at least part of the E2 coding region has been deleted from the adenovirus genome ... wherein the deletion causes said adenovirus

vector to be replication defective" (proposed new claim 52) should the Examiner determine Zhang's proposed claims 52-84 to be allowable.

Moreover, in Berman v. Housey, 291 F.3d 1345, 63 USPQ2d 1023 (Fed. Cir. 2002), the court affirmed the decision of the Board to decide a "threshold" motion raised pursuant to 35 U.S.C. § 135(b) and to decline to decide other preliminary motions then pending. The court further found that

the Board's refusal to address issues of priority and patentability once it determined that there was no interference-in-fact is supported by sound policy considerations. In a recent decision, the Board in *Gluckman v. Lewis* stated that:

Where the lack of an interference is apparent early in the proceedings, prudence will ordinarily counsel a schedule that focuses on the allegation of no interference-in-fact before the other issues for at least two reasons. First, just administration counsels that quasi-jurisdictional issues be resolved before a party's claims are placed in jeopardy. Otherwise, there might be an incentive for a party to engineer a thin pretext for an interference, knowing that the pretext will fail under scrutiny, simply to obtain an inter partes opposition or a more liberal inter partes reexamination, or for other reasons unrelated to the Board's mission under § 135(a) Second, inexpensive administration counsels early resolution of quasi-jurisdictional issues before the parties have expended resources briefing issues that should never have been raised given the lack of an underlying interference.

59 USPQ2d 1542, 1543-44 (Bd. Pat. App. & Inter. 2001) (footnotes and citations omitted). We agree with the wise observations of the Board. Id. at 1354, 63 USPQ2d at 1029-30.

For the above reasons, Zhang preliminary motions 1 and 2 are **dismissed** without prejudice to further proceedings before the Examiner; Zhang preliminary motion 3 is **dismissed** as moot; and, Kovesdi preliminary motions 1-6 are **dismissed** without prejudice.

V. Miscellaneous

F50. Claim 1 of U.S. Patent 5,882,877, issued March 16, 1999 to Gregory et al. (Gregory '877) (copy attached) reads:

An adenoviral vector comprising an adenovirus genome from which the E1, E2, E3 and E4 regions and late genes of the adenovirus genome have been deleted and additionally comprising a nucleic acid of interest operably linked to expression control sequences.

F51. Gregory '877 issued from U.S. application 08/895,194, filed July 16, 1997, which is a continuation of U.S. application 08/136,742, filed October 13, 1993 (now U.S. Patent 5,670,488), which is a continuation-in-part of U.S. application 07/985,478, filed December 3, 1992.

F52. Gregory '877 is prior art to Kovesdi at least as of October 13, 1994.

We suggest that upon resumption of ex parte prosecution of Kovesdi '416, the Examiner should (i) determine the scope of Kovesdi claims 19-26 and 36-87 and (ii) consider whether any of these claims are unpatentable over Gregory '877. For example, if Kovesdi claim 83, which recites an adenoviral vector wherein all of the E1, E2A, E3 and E4 regions of the adenoviral genome have been deleted, can be broadly construed to encompass adenoviral vectors wherein additional regions of the adenoviral genome are deleted, then claim 83 may be unpatentable over Gregory '877.

VI. Order

Therefore, upon consideration of the record and for the reasons given, it is ORDERED that the joint Kovesdi/Zhang motion for no interference-in-fact is **granted**.

FURTHER ORDERED that there is no interference-in-fact between Kovesdi '416 claims 19-21, 24-26, 36-87, 89-90 and 92-95 and Zhang '285 claims 1-10, 15-23 and 28-51.³

FURTHER ORDERED that a final judgment be entered that there is no interference-in-fact between (1) Kovesdi '416 claims 19-21, 24-26, 36-87, 89-90 and 92-95 and (2) Zhang '285 claims 1-10, 15-23 and 28-53.

FURTHER ORDERED that the subject matter of Kovesdi '416 claims 19-21, 24-26, 36-87, 89-90 and 92-95 is no impediment under the law to the issuance of a patent to Zhang '285.

FURTHER ORDERED that the subject matter of Zhang '285 claims 1-10, 15-23 and 28-51 is no impediment under the law to the issuance of a patent to Kovesdi '416.

FURTHER ORDERED that (1) Zhang preliminary motions 1 and 2 are **dismissed** without prejudice to further proceedings before the Examiner, (2) Zhang preliminary motion 3 is **dismissed** as moot, and (3) Kovesdi preliminary motions 1-6 are **dismissed** without prejudice.

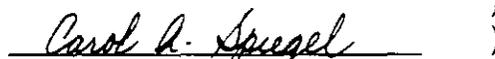
³ According to the Examiner, Zhang '285 claims 35-48 are unpatentable.

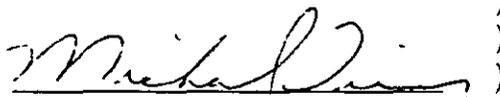
FURTHER ORDERED that if there is a settlement agreement between the parties, attention is directed to 35 U.S.C. § 135 (c).

FURTHER ORDERED that attention is directed to 37 CFR § 1.661.

FURTHER ORDERED that a copy of this paper shall be made of record in files of applications 08/258,416 and 08/222,285.


RICHARD TORCZON
Administrative Patent Judge


CAROL A. SPIEGEL
Administrative Patent Judge


MICHAEL P. TIERNEY
Administrative Patent Judge

) BOARD OF PATENT
) APPEALS AND
) INTERFERENCES

Enc.: copy of U.S. Patent 5,882,877

cc (via overnight delivery):

Kosvedi
(real party in interest
GENVEC, INC.):

John Kilyk, Jr., Esq.
Bruce M. Gagala, Esq.
Jeffrey B. Burgan, Esq.
Heather R. Kissling, Esq.
LEYDIG, VOIT & MAYER, LTD.
Two Prudential Plaza, Suite 4900
180 N. Stetson Ave.
Chicago, IL 60601
Tel: 312-616-5600
Fax: 312-616-5700
E-mail: JKilyk@leydig.com
BGagala@leydig.com
JBurgan@leydig.com
HKissling@leydig.com

Zhang
(real party in interest:
Board of Regents, University of Texas System)

Steven L. Highlander, Esq.
Charles P. Landrum, Esq.
Thomas M. Boyce, Esq.
David L. Parker, Esq.
FULBRIGHT & JAWORSKI, LLP
2400 One American Center
600 Congress Avenue
Austin, Texas 78701
e-mail: shighlander@fulbright.com
clandrum@fulbright.com
tboyce@fulbright.com
dparker@fulbright.com
tel: 512-536-3184 (Highlander)
512-536-5674 (Fulbright)
512-536-3043 (Boyce)
512-536-3055 (Parker)
fax: 512-536-4598