ImmunoGen, Inc. 830 Winter Street Waltham, MA 02451

May 26, 2009

VIA EDGAR

Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549 Attention: Jeffrey Riedler

Assistant Director

ImmunoGen, Inc.
Form 10-K for the fiscal year ended June 30, 2008

File No. 000-17999

Supplemental response submitted April 24, 2009

Dear Mr. Riedler:

Re:

This letter is submitted on behalf of ImmunoGen, Inc. (the "Company" or "we") in response to the comments of the staff (the "Staff") of the Securities and Exchange Commission (the "Commission") as set forth in your letter to Daniel M. Junius dated May 11, 2009 (the "Fourth Comment Letter") with respect to the Company's Annual Report on Form 10-K for the fiscal year ended June 30, 2008 (the "2008 Form 10-K"). Reference is also made in this response to (a) your letter to Mr. Junius dated February 3, 2009 (the "First Comment Letter"), (b) our supplemental response to the First Comment Letter submitted February 13, 2009 (the "First Supplemental Response"), (c) your letter to Mr. Junius dated March 17, 2009 (the "Second Comment Letter"), (d) our supplemental response to the Second Comment Letter submitted March 27, 2009 (the "Second Supplemental Response"), (e) your letter to Mr. Junius dated April 13, 2009 (the "Third Comment Letter") and (f) our supplemental response to the Third Comment Letter submitted April 24, 2009 (the "Third Supplemental Response," together with the First Supplemental Response and the Second Supplemental Response, the "Previous Supplemental Responses"). For reference purposes, the text of each comment in the Fourth Comment Letter has been reproduced herein with responses below each numbered comment.

1. Please provide us with draft disclosure showing how the targets will be disclosed in your next Form 10-K.

Response 1:

In response to this comment, our next Form 10-K (or our 2009 annual meeting proxy statement, to the extent our next Form 10-K incorporates information by reference to that proxy statement) will have disclosure with respect to our annual executive bonus program substantially as set forth on Exhibit A attached hereto. Please note that the disclosure set forth on Exhibit A attached hereto references the performance targets and the Compensation Committee's determinations with respect to our bonus program for the fiscal year ended June 30, 2008. The disclosure in our next

Form 10-K (or our 2009 annual meeting proxy statement, to the extent our next Form 10-K incorporates information by reference to that proxy statement) will replace the fiscal 2008 performance targets and related determinations of the Compensation Committee with those applicable to the fiscal year ended June 30, 2009.

2. Please explain the specific competitive harm you would incur if the identities of the collaborative partners from Exhibit A [to the Third Supplemental Response] were disclosed. Your discussion should explain why the disclosure in this context is likely to cause harm given the disclosure of the collaborative agreements in your Form 10-K.

Response 2:

As discussed in the Previous Supplemental Responses and in greater detail below, we believe that the disclosure of the identities of the collaborative partners from Exhibit A to the Third Supplemental Response would cause the Company competitive harm.

As disclosed in our 2008 Form 10-K, we have in-licenses, out-licenses, collaborations and other arrangements with multiple third parties. Even though all of these arrangements are disclosed in the 2008 Form 10-K, the importance of each of these arrangements to us changes from one time to another based upon our business focus, development prospects and resources at such time. As a result, the Compensation Committee may establish partner related corporate performance targets for our annual executive bonus program that reflect the relative importance of achieving certain thresholds and milestones under the different arrangements in any given fiscal year. Disclosure of the identities of the third parties to which each of these partner product development targets relate would provide our partners, potential partners and competitors with insight into the Company's business and development focus for the particular period without affording us similar access to their intentions. Third parties could use the information and the weight assigned to each arrangement in the bonus program to extrapolate which thresholds or milestones set forth in the underlying arrangements we hope to achieve in the given period, the importance we assign thereto and whether the threshold or milestone was actually achieved. Third parties could also use this information to determine the programs we have allocated and plan to allocate significant resources. Essentially, disclosure of the identities would provide a valuable roadmap to third parties of our research, development and commercialization focus for the given period.

Disclosure of the identities could also irreparably damage our relationships with our collaborative partners as they would be able to determine the relative importance we assign to the achievement of thresholds and milestones underlying their relationship with us in a given period. A particular partner could then incorrectly infer that we do not value our overall relationship with them if they are not listed or that we value our overall relationship with them less than others if a smaller percentage of the partner performance targets are allocated to our relationship with them. Additionally, the particular partner for

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For these reasons, we respectfully submit that the identities of the collaborators can be excluded under Instruction 4 to Item 402(b) of Regulation S-K and, therefore, request that we not be required to disclose such identities in connection with our executive compensation disclosure.

As requested in the Fourth Comment Letter, the Company acknowledges that:

- the Company is responsible for the adequacy and accuracy of the disclosure in the filing;
- · Staff comments or changes to disclosure in response to Staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the Company may not assert Staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you should have any questions concerning the enclosed matters, please contact the undersigned at (781) 895-0600.

Sincerely,

/s/ Craig Barrows

Craig Barrows

Vice President and General Counsel

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Exhibit A

Annual Executive Bonus Program

We do not have a formal incentive or bonus plan for executives. The Compensation Committee does, however, annually establish key performance criteria, based on our corporate goals and objectives, to be met by ImmunoGen, and evaluates ImmunoGen's actual performance against those criteria in its determination of whether cash incentive or bonus payments should be made to our executives. Key corporate performance criteria may include any or all of the following: (1) our actual financial performance against our plan for the applicable fiscal year; (2) achievement of certain research and development milestones, including internal product development advancement; and (3) achievement of key targets associated with our collaborations with third parties, including support of partner programs; and (4) the creation and achievement of business development opportunities.

The Compensation Committee may also consider an executive's individual performance in its determination of whether cash incentive or bonus payments should be made to the executive. The individual performance of each our executive officers (other than the CEO) is evaluated by our CEO, who may have established specific individual performance objectives for these executives and evaluated their actual performance in light of those objectives. The individual performance of our CEO is evaluated by all of the non-management directors on our Board, who may have established specific individual objectives for the CEO and evaluated the CEO's actual performance in light of those objectives. Based on these evaluations, the Compensation Committee determines the portion of our executive officers' bonus compensation tied to individual performance.

Each of our executive officers is eligible to receive a target bonus expressed as a percentage of his annual base salary which, once set, remains at that level for each subsequent year unless specifically changed by the Compensation Committee. The actual bonus amount for each executive is determined based on both ImmunoGen's actual performance against its key performance criteria and, if applicable, the executive's individual performance. The Compensation Committee has discretion in determining payouts under the portion of the CEO's annual executive bonus tied to individual performance without regard to previously-established goals, and our CEO is afforded the same discretion in recommending bonus payouts to the other executive officers.

The Compensation Committee may set a threshold aggregate percentage of corporate achievement against its key performance criteria below which bonuses based on corporate performance will not be payable. Assuming the threshold aggregate percentage has been achieved, the portion of the executives' target bonuses tied to corporate performance is based on the individual percentages assigned to the key performance criteria that have been achieved. Additional corporate objectives may also be set by the Compensation Committee that, if achieved, could result in bonus payments in excess of 100% of the portion of the executives' target bonuses based on corporate performance. Where applicable, the individual objectives portion of the executives' target bonuses may be earned irrespective of whether the threshold for payment of the corporate performance bonuses has been achieved or the extent to which bonuses based on corporate performance are

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payable.

The Compensation Committee establishes the corporate performance criteria and individual performance criteria, if any, with the expectation that ImmunoGen can achieve 100% of the target; however, the criteria are sufficiently difficult that such achievement is not assured at the time such objectives are

set. For example, in fiscal years 2006 and 2007, only 85% of the portion of the executives' target bonuses tied to corporate performance was earned, and as described below, in fiscal year 2008, only 67.5% of the portion of the executives' target bonuses tied to corporate performance was earned and only 85% of the portion of Mr. Tagliamonte's target bonuses tied to his individual performance was earned.

Consistent with our approach described above for allocating overall targeted compensation among the three components of compensation, for fiscal 2008, target bonus awards as a percentage of base salary were set for our executive officers as follows: Dr. Sayare (CEO) — 50%; Mr. Junius (CFO) — 35%; Dr. Lambert (Senior VP, R&D) — 30%; and Mr. Tagliamonte (VP, Bus. Dev.) — 30% (appropriately pro-rated to reflect his service during fiscal year 2008). For each executive, 70% of the target bonus was tied to the achievement of pre-established corporate objectives, and 30% was tied to individual performance. The corporate performance criteria included certain pre-defined "stretch" goals that, to the extent met, entitled the executives to receive up to an additional 50% of the portion of their target bonuses tied to corporate performance; however, unless corporate goals (including the "stretch goals") representing at least a 50% payout of the target corporate bonus were achieved, no bonuses would have been paid based on corporate performance. As described below, in all but one case the portion of the executives' target bonus tied to individual performance was discretionary, and not based on the achievement of pre-established individual performance objectives.

Corporate Performance. The corporate performance criteria for fiscal 2008 were structured into four groups as described in the table below. The table also shows the relative weighting of the areas with specific performance objectives within each group based on target, maximum (assuming achievement of "stretch" goals); and actual attainment for fiscal year 2008. As shown in the table, based on our management's assessment of its performance against the performance criteria described below, the Compensation Committee determined that 67.5% of the portion of the executives' target bonuses tied to corporate performance had been earned for fiscal year 2008.

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Corporate Performance Criteria	Target	Max (w/stretch)	Actual
nternal Product Development			
IMGN901 clinical progress	20%	30%	15%
IMGN242 clinical progress	15%	25%	5%
Antibody manufacturing-related activities	20%	20%	10%
Pipeline expansion programs	5%	15%	10%
Subtotal	60%	90%	40%
inancial Performance			
Controlling operating expenses	2.5%	2.5%	2.5%
Maintaining a pre-determined cash balance	5%	5%	5%
Raising additional capital	10%	15%	_
Subtotal	17.5%	22.5%	7.5%
Partner Products (1)			
Collaborator # 1	2.5%	7.5%	5%
Collaborator # 2	12.5%	12.5%	12.5%
Collaborator # 3	2.5%	2.5%	2.5%
Subtotal	17.5%	22.5%	7.5%
Business Development			
TAP technology out-licensing opportunities	5%	10%	_
Product out-licensing opportunities in certain markets	_	5%	_
Subtotal	5%	15%	_
Cotal	100%	150%	67.5%

⁽¹⁾ The objectives in this category were tied to specific milestones relating to our support of collaboration partners that have licensed our TAP technology to develop their own products.

Individual Performance. In all but one case, the portion of the executives' target bonus tied to individual performance was discretionary and not based on the achievement of pre-established objectives, and the Compensation Committee's determination of the individual portion of the target bonuses for these executive officers was based on an evaluation of the respective executive's overall performance and contributions to ImmunoGen based on qualitative/subjective factors (e.g., judgment, experience and leadership in setting corporate goals, effectiveness in carrying out responsibilities as members of the senior management team). The Compensation Committee did not specifically allocate or weight these qualitative/subjective factors and generally reviewed the entire mix of the executive's performance when determining annual bonus awards. Although the members of the Compensation Committee discussed and analyzed ImmunoGen's and each executive's performance as a group, members made their own individual judgment about which factors are important, and how to allocate or weight those factors in reaching a conclusion. It is possible, and likely, under this system, that different members of the Compensation Committee reached the same determination with respect to individual performance for different reasons.

Based on the non-management directors' evaluation of the individual performance of our CEO, in which the Compensation Committee did not consider any pre-established individual performance objectives, the Compensation Committee determined that the individual performance portion of his target bonus for fiscal year 2008 would be paid out at 100%. Based on Dr. Sayare's evaluation of the individual performances of Mr. Junius and Dr. Lambert, in which he did not consider any pre-established individual performance objectives, the Compensation Committee determined that the individual portion of these executives' target bonuses for fiscal year 2008 would be paid out at 100%. Based on Dr. Sayare's evaluation of Mr. Tagliamonte's achievement of

certain specific individual performance objectives set forth below established by Dr. Sayare, the Compensation Committee determined that the individual portion of Mr. Tagliamonte's target bonus would be paid out at 85%.

The Compensation Committee's determination of the individual portion of the target bonus for Dr. Sayare was based on the non-management directors' overall evaluation of his judgment,

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experience and leadership in setting corporate goals, the performance of his responsibilities as ImmunoGen's primary spokesman, and of his effectiveness in carrying out his other management responsibilities. The Compensation Committee's determination of the individual portions of the target bonuses for Mr. Junius and Dr. Lambert was based on Dr. Sayare's evaluation of their respective overall contributions to setting corporate goals as well as their effectiveness in carrying out their respective responsibilities as members of the senior management team. In each case the Compensation Committee did not assign any weighting to the individual factors considered. With respect to the portion of Mr. Tagliamonte's target bonus tied to individual performance, the Compensation Committee's determination was based on Dr. Sayare's evaluation of Mr. Tagliamonte's accomplishment of specific actions as set forth in the following table.

Tagliamonte Individual Actions	Target	Actual
Expanding partnerships with arrising callaborators	40%	400/
Expanding partnerships with existing collaborators	40%	40%
Identifying potential new collaborators	50%	35%
Detain develop and metivate hypiness development staff	10%	10%
Retain, develop and motivate business development staff	10%	10%
Total	100%	85%

Based on the foregoing, the executives' bonuses for fiscal year 2008, as shown in the Summary Compensation Table below, constituted the following percentages of the executives' annual base salary: Dr. Sayare — 38.6%; Mr. Junius — 27%; Dr. Lambert — 23.2%; and Mr. Tagliamonte — 22.5%.