February 14, 2018

Ms. Karen Reynolds
Executive Director, Office of Pharmaceuticals Management Strategies
Strategic Policy Branch, Health Canada
70 Colombine Driveway, Tunney's Pasture
Ottawa, Ontario
K1A 0K9

RE: Canada Gazette Part 1, Vol. 151, No 48; Regulations Amending the Patented Medicines Regulations

Dear Ms. Reynolds,

Bayer Inc.
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We are writing to provide the views of Bayer Inc. ("Bayer") on the consultation of proposed amendments to the Patented Medicines Regulations (the "Regulations") as published in the Canada Gazette I ("CG1") on December 2, 2017. Bayer is a member of both Innovative Medicines Canada ("IMC") and BIOTECanada, and we concur with the submissions of both associations; however, we wish to provide additional comments reflecting Bayer's perspective as one of Canada's top pharmaceutical innovators and investors in clinical trial research.

While we appreciate the opportunity to comment on the proposed Regulations, we are also deeply disappointed that the comments made by many stakeholders in the Whitepaper consultation, including those of Bayer, were for the most part not addressed and did not result in any *material* change to the draft published in CG1. No substantive reasons have been provided as to why important stakeholder feedback has not been incorporated.

Although Bayer is discouraged that Health Canada did not materially incorporate any of the comments from the Whitepaper to CG1, we are nevertheless still hopeful that the comments provided by stakeholders in this consultation will be incorporated. ***In addition, we are requesting that the government postpone the implementation of the proposed changes until a thorough risk assessment is conducted***. Former Health Minister Jane Philpott's speech to the Economic Club of Canada on May 16, 2017 introduced the building blocks for improved access which included affordability, access and appropriate prescribing[i]. While Health Canada, through the proposed changes to the Regulations, has focused solely on affordability, it has ignored the interdependency that each of these concepts have on one another. Addressing affordability without due consideration of how this will impact accessibility and

appropriate prescribing will have negative and unintended consequences. As a part of our request that Health Canada conduct a thorough risk assessment of these changes, we seek a response from Health Canada on the questions posed below. We request a formal response even if the suggestions are considered but not ultimately incorporated into the Regulations and Guidelines:

1) What is the rationale for price reform given: a) information from the 2016 PMPRB Annual report which indicates that prices are significantly below the median of the PMPRB7[ii] and b) an IMC study which showed that market-exclusive patented drugs are amongst the lowest of the PMPRB7[iii]?

2) How can meaningful discussions take place when the consultation on Regulations occurs without the proposed PMPRB Guidelines?

3) How are cost effectiveness, affordability and market size related to PMPRB's mandate to ensure that patented drugs are not excessively priced?

4) How does the PMPRB, a taxpayer-funded federal agency, plan to ensure that the use of cost effectiveness, affordability and market size price factors do not duplicate the cost-effectiveness and affordability work done by CADTH or INESSS[iv] and provincial drug plans, all of whom are also taxpayer-funded groups?

5) How will the use of subjective and non-uniform measures such as cost per Quality Adjusted Life Year ("QALY") and market size increase the predictability of patented drug prices?

6) How will setting ceiling prices based on confidential rebates for comparator drugs increase the predictability of patented drug prices?

7) What risk do these changes pose to the timing and availability of patented drug launches in Canada?

8) Can Health Canada provide the supporting analyses/evidence behind its conclusion that these regulatory changes will not lead to reductions in investment or employment by patentees?

9) What is the rationale for the selection of the PMPRB12 reference basket of countries? Why and how were other countries within the OECD not selected?

10) Has the PMPRB assessed whether lower patented drug prices will cause diversion of product to the U.S. and affect trade obligations and relationships with the European Union and the U.S. at a time when trade deals are being negotiated? What is the quantitative assessment of this risk?

11) How will the PMPRB maintain confidentiality of 3rd party confidential rebates when they will be used to determine the ceiling list prices of successive entrants?

Given that the proposals in CG1 are essentially unchanged from those proposed in the Whitepaper, the messages that Bayer wishes to convey are virtually unchanged. Because the commentary provided by Bayer and industry has not been meaningfully addressed, we reiterate our concerns below. Our response is organized into the following sections.

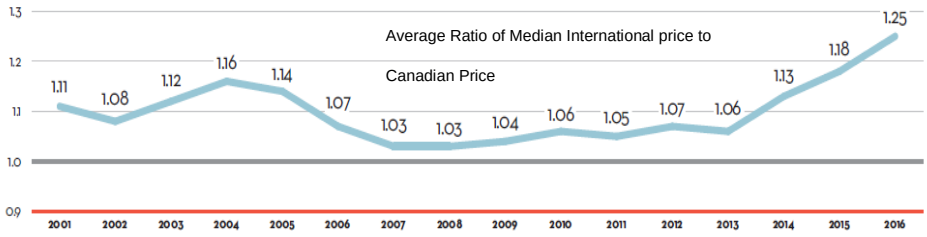
- PMPRB's mandate
- Process of the consultation
- Shortfalls of the Health Canada Cost-Benefit Analysis ("CBA")
- Recommendations to the proposed amendments to the Regulations
- Societal impact of reform
- Modernization of the R&D definition
- Prospective application of proposed Regulatory changes

PMPRB's Mandate

The PMPRB's stated regulatory mandate is to "ensure that patentees do not abuse their patent rights by charging consumers excessive prices during their statutory monopoly period."[v] The determination of an excessive price is currently applied against the value of the medicine with respect to its therapeutic benefit, which is consistent with the Patent Act's policy objective of fostering innovation. The proposed changes appear to establish a structure by which the PMPRB's authority is extended to also encompass determination of affordability and value, rather than its legislated mandate of ensuring that prices are not excessive. Given the significant consequences of this change to the PMPRB's mandate, Health Canada and the PMPRB need to clarify its legislative authority before proceeding further with the proposed Regulations.

In the consultation document, Health Canada states that PMPRB's current regulatory framework does not provide it with adequate tools to effectively protect Canadians from excessive prices, or for optimal price setting in today's pharmaceutical environment. However, data published by the PMPRB show that PMPRB in fact has been effective in achieving its mandate. For instance, the PMPRB has indicated that at introduction, Canadian drug prices are in line with international levels[vi]. Additionally, the 2016 PMPRB Annual Report clearly shows that Canadian prices remain 25% below that of the median of the PMPRB7 (Figure 1)[vii].

Figure 1. Average Ratio of Median International Price (MIP) to Canadian Price, at Market Exchange Rates, 2001-2016

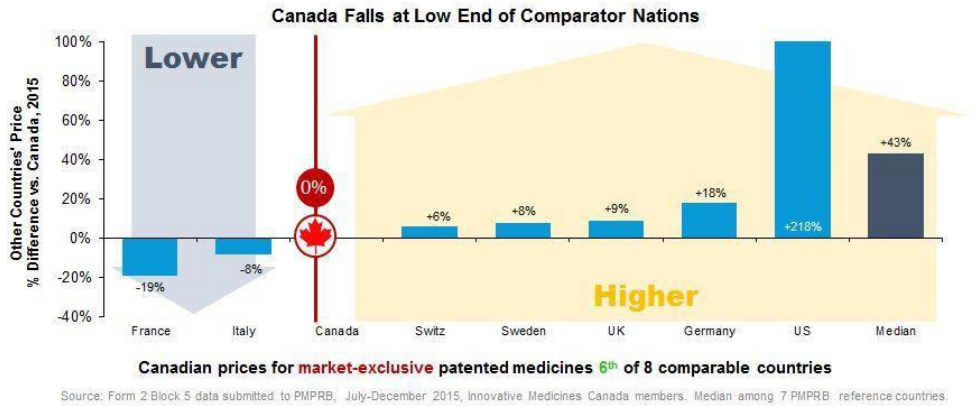


Source: PMPRB

Finally, a study commissioned by IMC and conducted by a third party, utilizing the same data provided by patentees to the PMPRB, shows that Canadian prices of patented drugs that have market exclusivity are actually 43% below the PMPRB7 median prices, putting Canada third lowest ahead of only France and Italy, and below the U.S., Germany, Switzerland, the U.K. and Sweden (Figure 2). Importantly, these Canadian prices are even lower once third party rebates are factored in[viii,ix,x].

These data all show that single-sourced patented drugs are not excessively priced in Canada. This conclusion holds even if the US is removed from the analysis as a comparator country.

Figure 2. Single-source patented drugs are actually ranked 6th Highest after removing Patented Generics & Multi-Source Patented Drugs



Consultation Process

Innovative medicines are a fundamental building block of a functioning healthcare system. As such, any policy changes that may impede access to innovative medicines should be fully deliberated in an comprehensive process with key stakeholders to help identify and reduce ambiguity around consequences, both intended and unintended. Meaningful stakeholder consultation is important as the process of participative input provides legitimacy to the policy decisions taken. Indeed, the Health Minister's Mandate Letter from the Prime Minister states, "Canadians need to have faith in their government's honesty and willingness to listen. I expect that our work will be informed by performance measurement, evidence and feedback from Canadians."[xi]

We feel that the Patented Medicines Regulation recommendations have been put forward by Health Canada without meaningful stakeholder consultation. We continue to stress that consulting on the proposed changes to the Regulations, without providing the accompanying draft PMPRB Guidelines prevents stakeholders from having a fulsome and meaningful discussion on the impacts of the changes. While Health Canada is not obligated to incorporate the feedback of stakeholders, the consultation process should be transparent, inclusive, and fair, and should address the key questions raised by stakeholders.

Below we outline the many reasons why the process has not met these principles. First, stakeholder submissions to the Whitepaper were not made public and Health Canada did not afford respondents the option to have their responses published.

Second, we presume that Health Canada's quantification of the impact of the PMPRB changes to industry was based on several assumptions regarding the PMPRB Guideline contents. However, all of the assumptions have not been shared, and the PMPRB has claimed that the Guidelines will be determined following the regulatory consultation process. In order for this consultation to have any meaning, all assumptions utilized by Health Canada should be disclosed and open for debate with stakeholders. Failure to do so undermines the entire objective of the consultation process.

Finally, the Health Canada CBA contains many critical omissions and questionable assumptions. These assumptions and omissions are outlined the section below.

Cost-Benefit Analysis

Following the release of CG1, Health Canada provided a CBA of the proposed regulatory changes. There are a number of issues with this analysis, and we are concerned that the CBA was conducted without the input of key stakeholders, including patentees and the government department where industry expertise resides – the Department of Innovation, Science and Economic Development

("ISED"). PDCI Market Access Inc. ("PDCI") provides a compelling synopsis of the shortfalls of the analysis[xii]. The summary of the major findings are listed below:

- No delay or reduced access to new medicines has been assumed and therefore there is no accounting for negative health outcome costs as a result
- The 10-year Net Present Value ("NPV") impact on the industry is significantly understated by Health Canada with the net impact being nearer to -$26.1B vs -$8.6B
- The range of the impact on the industry outlined in the CBA indicated an unacceptably large range, with estimates between Present Value -$6.4Bn and -$24.9Bn
- The CBA assumed that on average, medium-low impact drugs are discounted by 10% below what is currently reported to the PMPRB. This figure seems excessively low as Ontario has indicated that it is currently receiving almost 30% of total drug expenditures as rebates[xiii]
- The net impact does not consider the loss of tax revenue to the government (NPV estimated between -$4.7 to -10.4B) nor were lost tax revenues considered for indirect businesses that would be impacted including wholesalers, pharmacies, and generic drug manufacturers
- The assumption of no economic impact to the industry or economic footprint from removing over $8B in profit is unreasonable. The significant reduction in revenues as a result of these regulatory changes would be similar to the loss of exclusivity of a patented drug which results in companies reducing investments and employment[xiv,xv,xvi]
- Significant benefits provided by patentees, such as Product Listing Agreements ("PLA's"), co-payment assistance, compassionate use product and free goods, are ignored and assumed to continue unabated
- Changes in market conditions could trigger the requirement to renegotiate a cascade of existing pan-Canadian Pharmaceutical Alliance agreements, resulting in backlogs and delaying entry of new innovative medicines
- Increased costs for incremental administrative burden for the industry are significantly understated. While Health Canada believes that the incremental cost to the industry would be $10,000, we are anticipating that Bayer alone would have to increase spending more than that amount to procure the additional countries for International reporting purposes

While the cost to industry is significantly understated, Health Canada has assumed that the costs to ensure compliance and enforcement by the PMPRB have been estimated at a cost of $61.7M NPV over 10 years[xvii]. This is on top of the previously projected budget required by the PMPRB in 2019-20 of $10.8M for the Patented Medicines Prices Regulation program, and represents an 80% increase to the PMPRB's annual operating budget[xviii,xix]. An increase to the operating budget of the PMPRB along with the concomitant increase in the Special Allotment Fund for legal proceedings is inconsistent with the desire of the PMPRB to establish clear bright lines governing its pricing regulations.

PDCI's estimate of the impact to patentees and the vast range of impact provided by Health Canada suggest that the CBA may significantly underestimate the economic impact of the regulatory changes. We are both disappointed and highly concerned that the document downplays the impact to patients, to innovation and to patentees of the proposed regulatory changes. As part of our request to have a thorough risk assessment conducted, we ask that Health Canada consults with all stakeholders and considers the republication of the CBA once that has been completed.

Recommendations to the Proposed Regulatory Amendments

Update the schedule of countries used by the PMPRB for international price comparisons

Bayer is disappointed that more details were not released on the rationale behind the selection of the 12 countries that have been proposed for international price comparisons. Although Health Canada outlined three selection criteria that were applied to the group of 35 OECD countries, the ultimate decision on the 12 countries was not supported with any analyses or rationale justifying how these countries met the criteria, and why the other countries were not selected. The basis for the selection of these countries appears to simply target the OECD median price[xx]. The proposed list of countries are not reflective of Canada's economic standing[xxi], nor are the list of countries reassuring in terms of continued access for Canadians to new, innovative medicines[xxii]. The IMC has put forward one potential recommendation on the country basket – one that is more in-line with Canada's global status as being one of the leaders in healthcare and its economy. We ask that Health Canada discuss this option with IMC.

We are disappointed that multiple Whitepaper responses, including Bayer's, regarding the removal of the U.S. as a reference country were not clearly addressed in CG1. Although Health Canada indicated that the U.S. was not included in the new basket because it does not have a national pricing containment measure to protect consumers from high medicine prices, it did not address the myriad of other reasons provided by respondents on why the U.S. should be included.

In 2016, Canada had a $2.6Bn trade surplus with the United States for pharmaceutical products[xxiii]. Lowering drug prices in Canada will likely only increase this trade surplus at a time when trade deals with our NAFTA partners are being renegotiated. Wide scale importation of innovative drugs into the U.S. from Canada could affect product supply for Canadian patients. Consequently, price regulation must also consider obligations with and impact on our trading partners.

> Recommendation: Provide rationale for inclusion or exclusion of reference countries; Consider economic standing, access and trade implications in the selection of reference countries; Discuss options of reference basket with the IMC

Require patentees to report price and revenues, net of all price adjustments

We continue to strongly oppose the reporting of confidential rebates to the PMPRB. The rebates associated with these third party agreements are related to marketplace activities which occur below the excessive price thresholds.

Canadian manufacturers are typically able to launch products relatively early within the context of global launches. Canada was the second country of launch for approximately one-third of the 30 top-selling drugs[xxiv]. This is because Canadian drug prices are not seen to impose an International Reference Pricing ("IRP") risk which would compromise the commercial sustainability of a given product. Canadians gain timely access to new drugs through early drug launches due to the predictability of patented ceiling prices, while PLAs support this access at discounted prices.

The use of confidential rebates to determine future benchmark prices will lead to rebates becoming transparent over time. This will discourage global organizations from permitting Canada to be early in the sequence of countries launching a given drug, and may ultimately preclude some drugs from launching in Canada.

Aside from the potential legal concerns of sharing confidential information, there is a large technical challenge of reporting these rebates. There is often a significant delay before a province or payer invoices patentees for confidential rebates. Some provinces have been known to invoice years after the reimbursement event. The Ontario Auditor General report indicates that the lag in Ontario is greater than six months on average.[xxv] This could cause the Average Transaction Price of a drug to vary widely which would have significant implications when it is used to benchmark the prices of new drugs. Health Canada has also made the simplifying assumption that all third party agreements provide a simple rebate to the payer. However, there are many different types of negotiated agreements in

place including pay-for-performance agreements, utilization caps and market-share based rebates. Consequently, there are many legal, operational and technical challenges in incorporating all third party rebates to determine the price and revenues of a patentee.

> Recommendation: No reporting of third party rebates to the PMPRB due to legal, competitive and technical concerns

Introduction of three new price factors in the PMPRB Regulations

During the initial consultation phase, the PMPRB stated that the three new price factors would provide "bright lines" for patentees to determine compliance with the new pricing Regulations and Guidelines. To meet the standard for a "bright line", both the test and the threshold for determination need to be reliable, predictable, and certain to withstand legal challenge. At this point, as outlined in the following sections, none of the three proposed tests meet these standards and/or significant information is missing to evaluate whether it meets such a standard. Given the significant impact the new price factors will have on commerce and patient access, we urge Health Canada to not proceed any further with them until the qualification of these tests as a bright line standard is determined.

The Copaxone legal ruling (Teva Canada Innovation v. Canada (Attorney General), 2013 FC 448) indicated that PMPRB needs to consider ALL price factors in determining whether a drug is excessively priced[xxvi]. Adding additional price factors, especially those that are heavily reliant on assumptions, will likely to lead to divergent results in determining whether a patented drug is excessively priced.

Our comments regarding each proposed price factor are addressed below.

Pharmacoeconomics

Pharmacoeconomic ("PE") measures should not play a role in determining whether a patented drug is excessively priced. First, excessive price and cost effectiveness are two distinct concepts. A PE analysis compares the incremental cost and benefits of a pharmaceutical intervention to alternative treatment options in order to provide a measure of value for the intervention relative to its incremental cost and relative to existing treatment options. It is not designed to determine whether drugs are excessively priced. It is also highly subjective to the user, their perspective, and relative value assigned to health outcomes. Put simply, PE does not provide information that will address the PMPRB's mandated policy question of whether a given drug is excessively priced in Canada.

There are many other issues with using PE analysis for helping the PMPRB determine that prices are non-excessive. These include:

- PE models can be useful tools to consider when deciding between differing investment options; however, they are not definitive and are highly subject to a user's perspective. For example, Canada's two public Health Technology Assessment ("HTA") agencies, CADTH and INESSS, often assess the same drug differently, partially based on different assumptions, different model inputs and different relative values for health outcomes. This commonly results in different funding recommendations between the HTA agencies, reflecting how subjective PE assessments can be even between Canadian public payers.
- Even within the HTA world in which PE analyses are used, there are limitations and challenges. For example, the validity of using of PE and their accompanying Incremental Cost Effectiveness Ratio ("ICER") thresholds depend on a set of underlying conditions that are not met in the real-world environment in which policy decisions are made. The validity of using PE for drug reimbursement decision-making has been heavily criticized in the literature by some of the world's top health economists, let alone the validity of using this tool to answer a completely different policy question around drug pricing[xxvii,xxviii].
- PE analyses submitted to CADTH are conducted from a public healthcare system perspective. They do not consider the impact of an intervention on workplace productivity and other societal costs. However, given that approximately 25 million Canadians[xxix] are reliant on private drug coverage, the societal and productivity effects of a new therapy are important. However, the published HTAs that the PMPRB proposes will only consider the perspective of the public payer.
- The results of PE – measured using cost per Quality-Adjusted Life Year ("QALY"s) – are not an appropriate metric for excessive pricing as there is no clear consensus on what constitutes an acceptable threshold for cost per QALY. A single cost per QALY threshold would penalize specialty drugs and does not always capture patients' needs or preferences. QALY measures will favour therapies that have overall survival data, and show bias against newer agents, those that treat short-term disabilities, and those interventions that treat the pediatric population[xxx].

The consultation document indicates that other developed countries rely to some degree on cost per QALY in determining whether and how much to pay for a drug. However, we are unaware of any other country that regulates prices through PE analysis in the manner being proposed by Health Canada. Therefore, approaches used by other countries are irrelevant.

Market Size

We presume that market size will be used to assess budget impact. However, budget impact does not provide any information that can inform the PMPRB's mandated policy question of whether the price of a patented drug in Canada is excessive. Instead, it can be used to assess the total cost that a payer can expect for a given drug. This question is already assessed by each separate provincial, federal, and private payer as part of their decision-making process. Indeed, these stakeholders are much better positioned to address the question of budget impact/affordability because they have information on the price they will pay per unit for the drug in question, the total available budget, how much is presently being spent on all drugs under the budget, and how much the drug in question will actually cost per person and in aggregate. Importantly, each stakeholder also knows what their individual health priorities are and can make funding allocation decisions based on these priorities. Therefore, we strongly suggest that market size be removed as one of the additional tests. First, it does not provide information that is relevant to the PMPRB mandate of determining whether the Canadian price of a given drug is excessive. Second, this policy question is addressed by other stakeholders in the healthcare ecosystem, and these stakeholders are much better positioned to use market size information to address the question of budget impact and affordability.

Canada's GDP and GDP/capita

The lack of details in the consultation document limits the response that we are able to provide for Canada's GDP and GDP/capita. There should be clarity on the application of this pricing factor before we can advise Health Canada on the appropriateness of its use. In any case, while GDP and GDP per capita can be viewed as ability to pay, we do not see this as an effective measure on whether the drug is excessively priced. While we generally agree that countries with greater wealth can absorb more of the economic burden associated with patented drugs, GDP measures cannot be used in isolation and need to be 'normalized' with differences in healthcare systems. In addition, even within Canada, the GDP per capita figure can vary widely. It ranged from $42,157 for Prince Edward island, up to $109,122 for the Northwest Territories in 2015[xxxi].

Recommendation: Do not incorporate the three new price tests as they are highly subjective, will limit competition, and do not help the PMPRB to achieve its mandate to ensure patented drug prices are not excessive; the proposed price tests also duplicates the work conducted by other federal agencies

Societal Impact of Patented Medicines Regulations

Private Payers unlikely to pass on all the savings

The Regulatory changes will have a limited impact on public payers as the list price reductions will likely be less than the 3rd party confidential rebates they are currently receiving from patentees[xxxii] Most of the benefit will accrue to the private payers, but it is our contention that it is inappropriate to use public policy to drive the allocation of profit between two private sector industries. The private insurance industry is profit-driven and the resultant savings may not flow through to plan sponsors or beneficiaries as intended. As affirmation, private payers have shown that benefits paid out as a percentage of premiums have decreased significantly over the past 20 years, leading to a gap between premiums collected and benefits paid of $6.8Bn in 2011[xxxiii].

Delayed or No launch decisions will decrease competition and limit patient choice

Unacceptably low prices or uncertainty of patented drug prices will risk significant delays in the launching of innovative drugs in Canada. Indeed, the launch sequence of the 30 top-selling New Active Substances (“NAS”s), indicated that while Canada had a lag time from the first country to launch of 9.4 months, Italy and France had lag times of 14.8 and 15.4 months, respectively[xxxiv]. Recall that Italy and France had the lowest prices for single-source patented medicines within the PMPRB7 (Figure 2). In addition, while Canada had launched all 30 of these NASs, Italy and France did not launch 3 and 8 of the NASs, respectively[xxxv]. Delays in launching an innovative medicine as a result of International Reference Pricing (IRP) is incongruent in face of recent amendments to the Patent Act that encourage manufacturers to file for marketing authorization within a prescribed time period after a foreign filing in order to be eligible for extension of patent terms[xxxvi]. In addition, former Health Minister Jane Philpott announced a new pilot process allowing Health Canada and CADTH to conduct parallel reviews, to reduce the delay to access new innovative medicines[xxxvii]. Any potential savings of time due to these parallel reviews would be offset by decisions made by the patentee’s foreign headquarters to delay launches in Canada due to either uncertainty in the pricing environment or due to unacceptable prices.

New Price Factors will limit new indications

We question whether the Patent Act empowers Health Canada and the PMPRB to request prospective market size forecasts from the patentee. We know of no other industry where *forecasts* from the manufacturer are used to regulate the price of the product. In addition, the use of market size to determine drug prices would only ever serve to decrease drug prices and revenue. If actual sales fell short of the patentee's peak sales forecast, the ceiling price *may* be raised to give the patentee an opportunity to recoup investments already made to bring the drug to the market. However, the existence of negotiated third party agreements with payers already in place and the Consumer Price Index price factor in the Regulations would limit any potential for price increases. Without clear predictable ceiling prices, some manufacturers may forgo regulatory approvals on subsequent indications to prevent further price erosion. Drug choice for patients will be a casualty with the introduction of these regulatory changes.

Reducing innovative drug revenues **will** impact the economic footprint of IMC Companies

Without Guidelines to accompany the proposed regulatory changes, it is impossible for patentees to quantify the full impact on drug pricing, and therefore not possible to estimate the effect that this will have on investment and employment in the pharmaceutical industry. It also makes it difficult to surmise the impact that this would have on whether new drugs would be launched in Canada and whether their launch would be delayed. However, shaving billions in revenues from drug patentees will have a detrimental effect on employment, R&D and investment within Canada. The delay of drug launches in conjunction with a finite patent life of an innovative drug will curtail the revenues of a patented drug over its life-cycle which will detrimentally affect employment and investment by a patentee. The delay in launches will also inhibit patentees to capitalize on obtaining the recently enacted Certificate of Supplementary Protection to extend patent term, which was implemented as part of Canada's Comprehensive Economic and Trade Agreement (CETA) obligations. This will further restrict revenues of new innovative drugs and exacerbate the decrease in investment made by innovative pharmaceutical companies in Canada.

Modernization of the Regulations must also include redefining R&D

While the industry commitment of a 10% R&D to sales ratio target made sense when the PMPRB was first formed [a target achieved by the industry for many years[xxxviii]], the nature of R&D has changed over time. A combination of Revenue Canada tightening the eligibility criteria of investment tax credits along with a change in the way multinational companies' research and develop new

medications has made the 1987 definition of R&D utilized by the PMPRB obsolete. Instead of conducting in-house R&D activities, acquisitions and investments are now made in early stage companies or in co-ventures with research organizations. A modernized view of investment on R&D was conducted by EY which estimated that 9.97% of gross patented drug revenue was invested in 2016 by IMC companies[xxxix]. The 9.97% figure still did not capture several categories of investment such as the 2016 announcement of a Bayer co-venture to invest US$225 million in Toronto-based BlueRock Therapeutics[xl]. Consequently, any discussion on the modernization of the pricing framework should also include redefining R&D to reflect today's environment.

Prospective Treatment of New Regulations and Guidelines

Any change to the Regulations and Guidelines should only apply to any new DIN's launched after January 1, 2019. Existing medicines that are already available to patients have already been subjected to assessment and negotiation by multiple Canadian bodies and funding decisions based on value for money and affordability has already been made. Embroiling existing medicines in the new pricing regime would be unfair to patentees and patients because significant investments have already been made based on an existing regulatory framework.

Conclusion

Current Patented Medicines Regulations are sufficient for PMPRB to carry out its current mandate

Bayer is supportive of changing the PMPRB Regulations only if the PMPRB's mandate is not being met. As Canadian patented drug prices are significantly below the median international price, we believe that the PMPRB already has the tools needed to ensure that prices are not excessive. However, if this were not the case, and current pricing of pharmaceutical medicines warranted reform to better help the PMPRB achieve its mandate, we would recognize the need to incorporate additional measures insofar as they clearly helped to address the policy question of whether the Canadian prices of patented drugs are excessive. We note that the newly proposed factors such as cost effectiveness, affordability (market size) and willingness to pay, do not address the policy question (i.e. PMPRB's mandate) of whether an innovative drug's price is excessive and thus we challenge their relevance within the context any regulatory reform that is rooted in the PMPRB's current mandate of ensuring that patented drug prices are not excessive. In addition to challenging the relevance of the new proposed measures, we advocate that any regulatory changes made by a publicly funded body responsible for serving the needs of Canadians should be transparently stated and clearly explained. Furthermore, such changes should ensure the efficient use of taxpayer dollars such that there is no duplication across

other publicly funded agencies within the Canadian drug reimbursement decision-making system. The current proposals meet neither the condition of transparency and clarity nor that of efficiency. Rather, the proposed amendments to the Regulations are vague and duplicate roles conducted by other agencies in Canada. Should the PMPRB decide to include these factors despite the significant concerns raised both in this document and by other stakeholders, we suggest that these factors only be used as a last resort during an investigation, and with publicly-stated clarity on how these measures would further facilitate achievement of the PMPRB's mandate.

Meaningful consultations can only occur when both CG1 and PMPRB Guidelines are available

The Regulations amendments have been proposed without context on how these changes would be implemented in the PMRPB Guidelines. The PMPRB Scoping Document has only made vague references without complete disclosure of the Guidelines. Lacking the Guidelines, Bayer and other manufacturers are faced with insufficient relevant information, obstructing our ability to comment on the regulatory proposals in a fully informed manner. How Regulations will manifest itself in PMPRB Guidelines is important to allow all parties to provide meaningful feedback and make this process relevant and transparent.

Requests

We ask that Health Canada work closely with the PMPRB and other stakeholders, including other government agencies, payers, patentees and patients, to clearly elucidate the full impact of any Regulation amendment before its implementation. ***Consequently, we are requesting that the government postpone the implementation of the proposed changes until a thorough risk assessment is conducted*.** Furthermore, in order to mitigate potential significant impacts to Canadians who are benefitting from existing innovative medicines, we ask that any Regulation amendment be applied only on new DINs launched after January 1, 2019. This would serve to avoid the deluge of needless investigations on existing patented products and would ensure that patients who are receiving the benefits of innovative medicines continue receiving their treatments unabated.

We ask that the responses from all stakeholders be seriously considered and that Health Canada republish CG1 following the release of the PMPRB draft Guidelines. We also ask that Health Canada addresses the questions that remained unanswered from Whitepaper responses that were outlined at the beginning of this letter and considers full disclosure of all assumptions made in its CBA and afford respondents to the CG1 the option of having their submissions

posted publicly. Recommendations have also been made in our letter which we hope will be seriously considered in this CG1 consultation.

We also encourage Health Canada (and the PMPRB) to begin discussions with the IMC and BIOTECanada on a mutually acceptable framework that will allow the government to achieve lower drug prices, but also allow patentees to compete in a drug ecosystem that is predictable, sustainable and does not impede Canadians' access to innovative medicines. We would encourage Health Canada to also include ISED in its consultation and deliberations to ensure that any price reform does not drastically impact innovation and investment of IMC companies in Canada. The IMC has included one such proposal in its submission and has indicated their willingness to engage in constructive dialogue with Health Canada and the PMPRB. A collaborative approach is the only way to ensure that the drug ecosystem remains viable and continues to provide Canadians with fairly priced innovative drugs on a timely basis.

We thank Health Canada for accepting our response to CG1. We look forward to further discussions with Health Canada on this critical topic that affects us all.

Yours sincerely,

Dale Toki
Director, Pricing and Contracts

Bayer Inc.

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[i] https://www.canada.ca/en/health-canada/news/2017/05/economic_club_ofcanada-may162017.html
[ii] http://www.pmprb-cepmb.gc.ca/CMFiles/Publications/Annual%20Reports/2017/2016_Annual_Report_Final_EN.pdf; Figure 14
[iii] http://innovativemedicines.ca/wp-content/uploads/2015/05/20161024_PMPRB_Submission_Final.pdf; Figure 8
[iv] Canadian Agency for Drugs and Technologies in Health & Institut national d'excellence en santé et en services
[v] Health Canada, Protecting Canadians from Excessive Drug Prices, Consulting on Proposed Amendments to the Patented Medicines Regulations
[vi] Meds Entry Watch, 2015, Patented Medicine Prices Review Board
[vii] 2016 Annual Report, Patented Medicine Prices Review Board; Figure 14
[viii] Health Canada estimated to be 10% on medium/low impact drugs, while the Auditor General of Ontario indicated that the rebates are roughly 30%

[ix] Auditor General of Ontario, Annual report 2017: http://www.auditor.on.ca/en/content/annualreports/arreports/en17/v1_309en17.pdf
[x] http://innovativemedicines.ca/wp-content/uploads/2015/05/20161024_PMPRB_Submission_Final.pdf
[xi] https://pm.gc.ca/eng/minister-health-mandate-letter
[xii] http://www.pdci.ca/pdci-critical-assessment-pm-regs-amendments/
[xiii] Auditor General of Ontario, Annual report 2017: http://www.auditor.on.ca/en/content/annualreports/arreports/en17/v1_309en17.pdf
[xiv] https://www.usatoday.com/story/money/2017/12/14/teva-pharmaceutical-industries-job-cuts/951247001/
[xv] https://americaclosed.com/pharma-layoffs-2017-teva-eli-lilly-merck-endo-novartis-job-cuts/
[xvi] https://www.zacks.com/stock/news/287873/pharma-stock-roundup-allergan-announces-job-cuts-pfizer-inks-deals
[xvii] Amendments to the Patented Medicines Regulations, Cost-Benefit Analysis, p37
[xviii] 2017-18 Departmental Plan: http://www.pmprb-cepmb.gc.ca/view.asp?ccid=1295
[xix] http://www.pdci.ca/pdci-critical-assessment-pm-regs-amendments/
[xx] 2016 Annual Report, Patented Medicine Prices Review Board; Figure 13
[xxi] Canada tops G7 in latest IMF estimate for 2017 economic growth, No. 2 in 2018: http://www.cbc.ca/news/business/imf-canada-economy-g7-1.4347737
[xxii] While Canada has launched 61% of New Active Substances in 2009-2014, all other PMPRB12 countries lagged behind with the exception of Germany and the UK. Meds Entry Watch 2015, Appendix 1, Figure 1.1
[xxiii] https://www.ic.gc.ca/app/scr/tdst/tdo/crtr.html: Parameters used: Trade Type: Trade balance; Trading Partner: USA; Time Period: 2016; Product Code: HS30 Pharmaceutical Products
[xxiv] Meds Entry Watch, 2015, NPDUIS, Patented Medicine Prices Review Board
[xxv] http://www.auditor.on.ca/en/content/annualreports/arreports/en17/v1_309en17.pdf
[xxvi] http://www.smart-biggar.ca/en/articles_print.cfm?news_id=743
[xxvii] Birch, S. and Gafni, A. Information Created to Evade Reality (ICER). Pharmacoeconomics 2006:24(11):1121-1131.
[xxviii] Gafni, A. and Birch, S. Incremental cost-effectiveness ratios (ICERs): The silence of the lambda. Social Science & Medicine 62(2006):2091-2100.
[xxix] http://www.express-scripts.ca/Raising-Health/The-Value-of-Health-Insurance
[xxx] http://innovativemedicines.ca/wp-content/uploads/2017/08/20170628_PMPRB_Submission_Final_EN_final.pdf
[xxxi] https://www.worldatlas.com/articles/canadian-provinces-and-territories-by-per-capita-gdp.html
[xxxii] Based off of 20% list price reduction (difference of Foreign-to-Canadian Price Ratio of Canada to OECD median) from 2016 PMPRB Annual Report, Figure 13., and Auditor General of Ontario, Annual report 2017: http://www.auditor.on.ca/en/content/annualreports/arreports/en17/v1_309en17.pdf
[xxxiii] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4150733/
[xxxiv] http://www.pmprb-cepmb.gc.ca/CMFiles/NPDUIS/NPDUIS_MedsEntryWatch_2015_e.pdf.
[xxxv] Ibid.

[xxxvi] In addition, there are inconsistencies in that Health Canada and the PMPRB are utilizing regulations from mainly European jurisdictions to temper patented drug prices, but Canadian protection for pharmaceutical innovation has lagged behind the European Union

[xxxvii] https://www.canada.ca/en/health-canada/news/2017/05/economic_club_ofcanada-may162017.html

[xxxviii] 2016 Annual Report, Patented Medicine Prices Review Board

[xxxix] EY Report, p 3 http://innovativemedicines.ca/wp-content/uploads/2017/10/20171030_EY-REPORT_IMC_FINAL.pdf

[xl] http://www.press.bayer.com/baynews/baynews.nsf/id/Bayer-Versant-Ventures-Join-Forces-Launch-Stem-Cell-Therapy-Company-BlueRock-Therapeutics-USD