Pharmaceutical KPI (Interim Version 1.0)
As of May 12, 2010

<table>
<tr><th>No.</th><th>KPI</th><th>Description</th><th>KPI formula</th><th>Practice Example</th><th>Application Date</th><th>Relation with Financials</th><th>Merit/Need</th></tr>
<tr><td>1</td><td>Number of Challenges to "Unmet Needs"</td><td>To understand the degree of companies efforts towards to unmet needs</td><td>To let companies to define what "unmet needs" are and count the number of unmet needs areas that company engage depending on their own classification methodology</td><td>Sample Business Case: ABC company
<table><tr><th>Definition of unmet needs</th><th>Areas</th><th>Number of Areas</th></tr><tr><td>Unmet medical needs</td><td>Thrombosis, cancer, diabetes, autoimmune disease/rheumatoid</td><td>4</td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>(Future) sales</td><td>We can plan area portfolio strategies and check if they work properly.
It is also important from a CSR standpoint.</td></tr>
<tr><td>2</td><td>Number of Screening</td><td>To understand the development capability of new medicine</td><td>Breakdown the results of screening for the chemical compounds which entered to preclinical phase by therapeutic categories.</td><td>Sample Business Case: ABC company
<table><tr><th>Anatomical Therapeutic Chemical (ATC) Classification System</th><th>Number of drug candidates</th><th>Previous 3-year average</th></tr><tr><td>Nervous system & Sensory organ drugs</td><td></td><td></td></tr><tr><td>Each organ drugs</td><td></td><td></td></tr><tr><td>Metabolic drugs</td><td></td><td></td></tr><tr><td>Stem cell drugs</td><td></td><td></td></tr></table>Reference: Wikipedia (Japanese)</td><td>Provided once a year according to the fiscal term.</td><td>(Future) sales, Research and development costs</td><td>We can understand the development capability and the efficiency of screening test in early stages of the new drug research and development pipeline.</td></tr>
<tr><td>3</td><td>Number of Patents &Substance Patents Ratio</td><td>To understand the development capability of new medicine</td><td>(Number of substance patents/Total patents)×100</td><td>Sample Business Case: ABC company
<table><tr><th></th><th>Substance patents</th><th>Process patents</th><th>Usage patents</th><th>Others</th><th>Total patents</th></tr><tr><td>Number of patents</td><td>15</td><td>28</td><td>32</td><td>22</td><td>97</td></tr></table>Allowance rate of substance patents = (15/97) × 100</td><td>Provided once a year according to the fiscal term.</td><td>(Future) sales</td><td>We can plan for a managerial resource allocation by discovering strong areas of internal research and development according to nature of patents.</td></tr>
<tr><td>4</td><td>R&D ratio by Therapeutic Area</td><td>To understand the strength of Pipeline, Progress of R&D</td><td>Breakdown the R&D expenses for the year by therapeutic areas and the phases (preclinical, clinical, alliance) and divided by total R&D expenditure. Disclose with the accumulated amount for the past 5 years.</td><td>Sample Business Case: ABC company
(Unit: JPY 100 million)
<table><tr><th rowspan="2">Therapeutic areas</th><th rowspan="2">Non-clinical practice rate</th><th colspan="4">Clinical practice rate</th><th rowspan="2">Rate for alliances</th><th rowspan="2">Accumulated amount for last 5 years</th></tr><tr><th>Ⅰ</th><th>Ⅱ</th><th>Ⅲ</th><th>Ⅳ</th></tr><tr><td>Diabetes</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>Research and development costs,
(Future) sales</td><td>We can take early actions for the next reseach and development (R&D) plan by understanding the effect of strategic allignment of area portfolio and the efficiency from R&D project status for each therapeutic area.</td></tr>
<tr><td>5</td><td>Number of Licensing by Area</td><td>To assume the aggressiveness of R&D activities for other geographical areas besides Japan and the result of R&D</td><td>Breakdown the licensing expenses for the year by areas and the phases (preclinical, clinical, alliance) and divided by total R&D expenditure. Disclose with the accumulated amount for the past 5 years.</td><td>Sample Business Case: ABC company
(Unit: JPY 100 million)
<table><tr><th rowspan="2">Locations</th><th rowspan="2">Non-clinical practice rate</th><th colspan="4">Clinical practice rate</th><th rowspan="2">Rate for alliances</th><th rowspan="2">Accumulated amount for last 5 years</th></tr><tr><th>Ⅰ</th><th>Ⅱ</th><th>Ⅲ</th><th>Ⅳ</th></tr><tr><td>U.S.</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>Europe</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>Research and development costs,
(Future) sales</td><td>We can take early actions for the next reseach and development (R&D) plan by understanding the effect of strategic allignment of area portfolio and the efficiency from R&D project status for each therapeutic area.</td></tr>
<tr><td>6</td><td>Number of Test Cases by Project</td><td>To assume the driving power for clinical test</td><td>Number of implemented cases/total cases = implementation ratio for top 10 items</td><td>Sample Business Case:
ABC company closed 305 contracts with XYZ Contract Research Organization (CRO) and only 246 were executed.
<table><tr><th rowspan="3">Project</th><th colspan="8">Clinical test rate</th><th rowspan="3">Contracted number of cases</th></tr><tr><th colspan="2">Ⅰ</th><th colspan="2">Ⅱ</th><th colspan="2">Ⅲ</th><th colspan="2">Ⅳ</th></tr><tr><th>R</th><th>C</th><th>R</th><th>C</th><th>R</th><th>C</th><th>R</th><th>C</th></tr><tr><td></td><td></td><td>100%</td><td></td><td>100%</td><td>80%</td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>R (Recruiting): participants are currently being recruited
C (Completed): the study has concluded normally; participants are no longer being examined or treated
(i.e., last patient's last visit has occurred)</td><td>Provided once a year according to the fiscal term. The higher the rate, the better the performance.</td><td>(Future) sales</td><td>We can sort out the relationship status with Contract Research Organization (CRO) looking at the clinical execution rate.</td></tr>
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<tr><th>No.</th><th>KPI</th><th>Description</th><th>KPI formula</th><th>Practice Example</th><th>Application Date</th><th>Relation with Financials</th><th>Merit/Need</th></tr>
<tr><td>7</td><td>R&D Success Rate for Therapeutic area and Phase</td><td>To understand the R&D success rate by the transition ratio from the previous phase</td><td>number of chemical compounds at the stage÷ number of chemical compounds at the previous stage ×accumulated successful rate</td><td>Sample Business Case: ABC company

Area: Diabetes
<table><tr><th></th><th colspan="4">Clinical phase</th><th>Number of applications</th><th>Number of approved</th></tr><tr><th></th><th>Ⅰ</th><th>Ⅱ</th><th>Ⅲ</th><th>Ⅳ</th><th></th><th></th></tr><tr><td>Chemical compounds</td><td>16</td><td>12</td><td>10</td><td>9</td><td>7</td><td>6</td></tr><tr><td>Success rate</td><td></td><td>0.75</td><td>0.833</td><td>0.9</td><td>0.77</td><td>0.85</td></tr><tr><td>Cumulative success rate</td><td></td><td>0.75</td><td>0.625</td><td>0.56</td><td>0.43</td><td>0.37</td></tr></table></td><td>Provided once a year according to the fiscal term. The higher the rate, the better the performance.</td><td>(Future) sales</td><td>We can plan for a managerial resource allocation by identifying a company's development capacity from the success rate trends in research and development projects.</td></tr>
<tr><td>8</td><td>Market Shares for Popular Products（by Area）</td><td>To know which country or area the Company obtains the market strength and how the company deploy their market in global market.</td><td>Revenue of popular items÷Market Share</td><td>Sample Business Case: ABC company

Note: The off-patent date deffers by areas.
<table><tr><th rowspan="2">Preliminary patents</th><th rowspan="2">Locations</th><th rowspan="2">Rate in total sales</th><th colspan="3">Off-patent period</th></tr><tr><th>X < 1</th><th>1 year < X < 3 years</th><th>3 years < X < 5 years</th></tr><tr><td rowspan="2">A</td><td>Japan</td><td></td><td>Item BB</td><td>-</td><td>-</td></tr><tr><td>U.S.</td><td></td><td></td><td>-</td><td>Item FF</td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>(Future) sales
Rate of return</td><td>We can study the effects on drop in sales by the number of off-patent drugs and plan next strategies as soon as drugs go off patent.</td></tr>
<tr><td>9</td><td>Number of Deployment Areas for R&D Basis</td><td>To understand the aggressiveness of global Deployment</td><td>Number of areas where company deploys laboratories</td><td>Sample Business Case: ABC company (sorted by areas)

(Unit: JPY 100
<table><tr><th>Areas</th><th>Locations</th><th>Market size</th><th>Sales</th><th>Market share</th></tr><tr><td rowspan="4">Nerve</td><td>U.S.</td><td>8,000</td><td>1,500</td><td>19%</td></tr><tr><td>Europe</td><td>12,000</td><td>1,500</td><td>13%</td></tr><tr><td>Japan</td><td>5,000</td><td>2,000</td><td>40%</td></tr><tr><td>Developing countries</td><td>12,000</td><td>1,500</td><td>13%</td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>Sales</td><td>We can plan competitive strategies and verify if the past competitive strategies were successful.</td></tr>
<tr><td>10</td><td>Project Ratio by Targeted Area</td><td>To understand the aggressiveness of global Deployment</td><td>Breakdown the projects into local and global areas</td><td>Sample Business Case: ABC company
(Basic research: 4 areas, clinical research: 3 areas, development research: 3 areas)
<table><tr><th rowspan="2">Locations</th><th colspan="4">Existance of offices</th><th rowspan="2">y/y</th></tr><tr><th>Basic research</th><th>Development Research</th><th>Clinical research</th><th></th></tr><tr><th></th><th></th><th></th><th>Internal</th><th>External (CRO)</th><th></th></tr><tr><td>U.S.</td><td>○</td><td>○</td><td>○</td><td>○</td><td>-</td></tr><tr><td>Europe</td><td>×</td><td>×</td><td>×</td><td>×</td><td>Open two offices</td></tr><tr><td>Japan</td><td>○</td><td>○</td><td>○</td><td>○</td><td>Close one office</td></tr><tr><td>Developing countries</td><td>○</td><td>○</td><td>×</td><td>×</td><td>-</td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>(Future) sales, Research and development costs</td><td>Figuring out the research and development system such as global drug discovery infrastructure, clinical research infrastructure and so on, we can make an optimized research and development investment plan which is focused on future senario of global development.</td></tr>
<tr><td>11</td><td>License Ratio by Area</td><td>To understand the aggressiveness of Global Deployment</td><td>Breakdown the number of licenses into areas where company has sales rights and divide by total license</td><td>Sample Business Case: ABC company

<table><tr><th>Object locations</th><th>Number of projects</th></tr><tr><td>Global</td><td>70%</td></tr><tr><td>Local</td><td>30%</td></tr></table>
Breakouts of local areas can be indicated in the appendix.</td><td>Provided once a year according to the fiscal term.</td><td>(Future) sales, Research and development costs</td><td>We can make a managerial resource allocation plan which is focused on future senario of global development by understanding capability of drug discovery infrastructure, clinical research infrastructure and so on of each area.</td></tr>
<tr><td>12</td><td>License-In Ratio by Therapeutic Area</td><td>To specify the pipelines which need to be reinforced and to understand the therapeutic areas which the Company's main focus.</td><td>Breakdown the number of license-in items by therapeutic areas into developed products and undeveloped products.</td><td>Sample Business Case: ABC company

<table><tr><th rowspan="2">Locations</th><th rowspan="2">In or Out</th><th colspan="3">License agreement ratio</th></tr><tr><th>Merchandises</th><th>Products (unlicensed)</th><th>y/y</th></tr><tr><td rowspan="2">Global</td><td>In</td><td></td><td></td><td></td></tr><tr><td>Out</td><td></td><td></td><td></td></tr><tr><td rowspan="2">U.S.</td><td>In</td><td></td><td></td><td></td></tr><tr><td>Out</td><td></td><td></td><td></td></tr><tr><td rowspan="2">Japan</td><td>In</td><td></td><td></td><td></td></tr><tr><td>Out</td><td></td><td></td><td></td></tr><tr><td rowspan="2">Developing countries</td><td>In</td><td></td><td></td><td></td></tr><tr><td>Out</td><td></td><td></td><td></td></tr></table></td><td>Provided once a year according to the fiscal term. The contract type must be written.</td><td>Sales (in-licensed products sales)</td><td>We can plan further sales promotion strategies for corporate/organizational alignment by identifying patent usage in locations where there is no sales channel.</td></tr>
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<tr><th>No.</th><th>KPI</th><th>Description</th><th>KPI formula</th><th>Practice Example</th><th>Application Date</th><th>Relation with Financials</th><th>Merit/Need</th></tr>
<tr><td>13</td><td>License-Out Ratios by Contract Object</td><td>To understand the utilization of in-house patents and the earnings model by intellectual properties</td><td>Breakdown the number of license-out items by therapeutic areas into developed products and undeveloped products.</td><td>Sample Business Case: ABC company
<table><tr><th rowspan="2">Therapeutic areas</th><th colspan="2">License agreement ratio</th><th rowspan="2">Gross interest</th><th rowspan="2">y/y</th></tr><tr><th>Merchandises</th><th>Products (unlicensed)</th></tr><tr><td>Diabetes</td><td>5%</td><td>40%</td><td>%/ %</td><td>-2%/5%</td></tr><tr><td>Nerve</td><td>13%</td><td>50%</td><td>%/ %</td><td>+3%/-4%</td></tr></table>Therapeutic areas deffers depending on each company.</td><td>Provided once a year according to the fiscal term. The contract type must be written.</td><td>Sales (area license-out fees)</td><td>We can design further sales promotion strategies or portfolio strategies to use intellectual assets by recognizing not only product sales but also patent usage.</td></tr>
<tr><td>14</td><td>Number of Accepted Literatures by Therapeutic Area</td><td>To understand the quality of researcher</td><td>Breakdown the number of accepted literatures for major journals by therapeutic areas.</td><td>Sample Business Case: ABC company
Sales promotion objectives: total number of products and pipelines = 10 (License-out(L.O.) = 4)
<table><tr><th></th><th colspan="3">Number of license agreements</th></tr><tr><th>Contract type</th><th>Merchandises</th><th>Products (unlicensed)</th><th>y/y</th></tr><tr><td>Sales promotion</td><td>10%</td><td>55%</td><td>-2%/5%</td></tr><tr><td></td><td>15%</td><td>40%</td><td>+3%/-4%</td></tr></table></td><td>Provided once a year according to the fiscal term. The contract type must be written.</td><td>Sales (out-licensing revenue)</td><td>We can design further sales promotion strategies to use intellectual assets by recognizing not only product sales but also patent usage.</td></tr>
<tr><td>15</td><td>Number of patents due to expire(within next 1 year, 3 years, and 5 years)</td><td>To understand the strength of pipeline</td><td>Breakdown the number of patents due to expire(within next 1 year, 3 years, and 5 years)</td><td>Sample Business Case: ABC company
<table><tr><th></th><th>1996-2000</th><th>2000-2004</th></tr><tr><td>Non-clinical research</td><td>2</td><td>1</td></tr><tr><td>Clinical research</td><td>1</td><td>3</td></tr></table></td><td>Provided data of last five rolling years once a year according to the fiscal term.</td><td>None</td><td>We can identify good researchers and understand strengths and weaknesses by area.</td></tr>
<tr><td>16</td><td>Ratio of MR（generalist) by Item</td><td>To understand the MR's informative ability and sales negotiation</td><td>Breakdown the number of MR Generalists by items. (Define MR generalist as MR who is in charge of more than 10 items for this KPI purpose)</td><td>Sample Business Case: ABC company
<table><tr><th>Items</th><th>Rate of MR (G) for the current year</th><th>3-year average MR (G) rate</th></tr><tr><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td></tr></table></td><td>Provided once a year according to the fiscal term.</td><td>Sales,
Labor costs</td><td>We can prove the capability of the information provision as the result of shares gain.</td></tr>
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