# DRUG DEVELOPMENT TARGET PRODUCT PROFILE

# Template

This template provides suggested considerations that may assist biopharmaceutical companies in their decisions as to whether to proceed with a drug development program (Program). This template is provided solely as a convenience aid, not as a decision-making tool. It does not necessarily include a comprehensive list of all of the information that may be useful to collect and evaluate in connection with any particular Program. In deciding whether to proceed with a Program, users of this template may find it necessary or beneficial to evaluate additional information not included in this template, exclude certain information included in this template, otherwise modify the approach suggested in this template and/or consult with others who are knowledgeable about their Program, as appropriate for the Program. This template is provided "as is" without any representations or warranties, express or implied.



## **Asset Overview**

| rademark:              |
|------------------------|
| herapeutic Area:       |
| Development Phase:     |
| Generic Name:          |
| roject Code:           |
| Order of Market Entry: |
| irst Launch (MM/YY):   |

## **1. INDICATIONS AND USAGE**

| Target   | Annotations |
|----------|-------------|
|          |             |
|          |             |
|          |             |
| Comments |             |

## 2. DOSAGE AND ADMINISTRATION

| Target   | Annotations |
|----------|-------------|
|          |             |
|          |             |
|          |             |
| Comments |             |

## **3. COMPARATOR PROFILE**

| Patent Life             |  |
|-------------------------|--|
| Date Approved:          |  |
| Date Generic Available: |  |
| Indications             |  |
| Approved:               |  |
| In Development:         |  |
| Market Share (U.S.)     |  |
| Present:                |  |
| Future:                 |  |
| Other Criteria          |  |

## 4. TARGET BRAND POSITIONING:

#### Key Risk Decisions (examples)

- ► Early decisions on whether to proceed with a drug development program (go decisions) or to discontinue the program (no-go decisions) may be based on Phase I single agent or combination study data.
- ▶ The development strategy may be based on the need to pursue comparator trials.
- Reassessment of endpoint criteria for go/no-go decision may be required based on progress/status of competitors in development.

| Indication(s) and Projected Launch Date:         |          |            |        |         |                                   |          |            |
|--|----------|------------|--------|---------|-----------------------------------|----------|------------|
| Target Population (Check all appropriate boxes): |          |            |        |         |                                   |          |            |
| Infants  | Children | Adolescent | Adults | Elderly | Other                             | Men Only | Women Only |
|  |          |            |        |         |                                   |          |            |
|  |          |            |        |         | (Example: Special<br>Populations) |          |            |

### **5. ESSENTIAL TARGET PRODUCT PROFILE CLAIMS**

| Essential<br>Messages/<br>Claims<br>(Pharmacology,<br>efficacy, safety<br>or other) | Commercial<br>Value of<br>Additional<br>Claims | Promotion<br>or<br>Publication<br>Only   | Study<br>Design   | Description/<br>Title | Essential<br>Attributes<br>for<br>Registration | Competitor<br>Data | Differential<br>Competitive<br>Advantages | Probability of<br>Success/<br>Achievability |
|---|--|--|---|-----------------------|--|--------------------|---|---|
| Phase I<br>Efficacy   |  |  |   |                       |  |                    |   |   |
|   |  | Promotion<br>At Launch<br>Post Launch<br>Publication<br>At Launch<br>Post Launch | (Examples:<br>Biomarker,<br>Combo,<br>Open Label,<br>Basket,<br>Adaptive)     |                       |  |                    |   | Claim is:                                   |
| Phase I<br>Safety/<br>Tolerability  |  |  |   |                       |  |                    |   |   |
|   |  | Promotion<br>At Launch<br>Post Launch<br>Publication<br>At Launch<br>Post Launch | (Examples:<br>SAD/MAD,<br>DDI, PK,<br>Food Effect,<br>Special<br>Populations) |                       |  |                    |   | Claim is:                                   |

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|---|--|---|---|-----------------------|--|--------------------|---|---|
| Phase II<br>Efficacy  |  |   |   |                       |  |                    |   |   |
|   |  | Promotion         At Launch         Post Launch         Publication         At Launch         Post Launch | (Examples:<br>Biomarker,<br>Combo,<br>Open Label,<br>Basket,<br>Adaptive)     |                       |  |                    |   | Claim is:                                   |
| Phase II<br>Safety  |  |   |   |                       |  |                    |   |   |
|   |  | Promotion<br>At Launch<br>Post Launch<br>Publication<br>At Launch<br>Post Launch                          | (Examples:<br>SAD/MAD,<br>DDI, PK,<br>Food Effect,<br>Special<br>Populations) |                       |  |                    |   | Claim is:                                   |
| Phase III<br>Efficacy   |  |   |   |                       |  |                    |   |   |
|   |  | Promotion At Launch Post Launch Publication At Launch Post Launch Post Launch                             | (Examples:<br>Biomarker,<br>Combo,<br>Open Label,<br>Basket,<br>Adaptive)     |                       |  |                    |   | Claim is:                                   |
| Phase III<br>Safety   |  |   |   |                       |  |                    |   |   |
|   |  | Promotion At Launch Post Launch Publication At Launch Post Launch Post Launch                             | (Examples:<br>SAD/MAD,<br>DDI, PK,<br>Food Effect,<br>Special<br>Populations) |                       |  |                    |   | Claim is:                                   |

### 6. DEVELOPMENT DECISION POINTS BASED ON COMPARATORS

| Endpoint             | Comparator | Equivalence | Significant increase | Superior increase |
|----------------------|------------|-------------|----------------------|-------------------|
| Efficacy             |            |             |                      |                   |
|                      |            |             |                      |                   |
| Safety               |            |             |                      |                   |
|                      |            |             |                      |                   |
| Rapid Decision Point |            |             |                      |                   |
|                      |            |             |                      |                   |

#### Go/No-go Decision Criteria:

- ► If there is **insufficient evidence** of increased efficacy vs comparator data (defined as meeting **none** of the significant activity thresholds for efficacy endpoint), this may indicate that a no-go decision is appropriate.
- ► In Phase I trials, if there is <u>some evidence of increased efficacy</u> vs. comparator data (defined as meeting or exceeding at least one significant activity threshold for one efficacy endpoint), proceeding with a controlled Phase II study may be appropriate. These results may be useful in deciding whether to begin Phase III studies.
- ► If there is <u>evidence of superior</u> efficacy vs. comparator historical information (defined as meeting all efficacy endpoints thresholds and at least one superior increase), it may be appropriate to accelerate development and begin Phase II-III controlled registration studies.
- If there is <u>some evidence of comparable or increased efficacy</u> vs. comparator data (defined as meeting or exceeding at least one significant activity threshold for one efficacy endpoint), and <u>superior safety or clinical benefit</u> it may be appropriate to begin a controlled Phase II study. These results may be useful in deciding whether to begin Phase III studies.

#### EXAMPLES OF SUGGESTED GO/NO-GO CRITERIA FOR EACH MILESTONE

#### Phase I

Adequate safety and tolerability

#### Phase II Proof of Concept (PoC®)

- Efficacy threshold
- Comparable or better safety

#### Phase IIb

Dose ranging

Comparable or better than adequate safety and efficacy

#### Phase III Registration Trials

EfficacySafety

## Registration Decision Point (RDP)

► Totality of safety and efficacy data greater than or equal to standard of care

## 7. ADDITIONAL CLAIMS

| Essential<br>Messages/<br>Claims<br>(Pharmacology,<br>efficacy, safety<br>or other) | Commercial<br>Value of<br>Additional<br>Claims | Promotion<br>or<br>Publication<br>Only   | Study Design   | Description/<br>Title                         | Essential<br>Attributes<br>for<br>Registration | Competitor<br>Data                    | Differential<br>Competitive<br>Advantages   | Probability of<br>Success/<br>Achievability  |
|---|--|--|--|---|--|---------------------------------------|---|--|
| Japan Specific<br>Claims  |  |  |  |   |  |                                       |   |  |
|   |  | Promotion<br>At Launch<br>Post Launch<br>Publication<br>At Launch<br>Post Launch | Incidence<br>of Adverse<br>Events (AEs)<br>(Study<br>Code To Be<br>Determined) |   |  |                                       |   | Existing data:<br>Increase Risk<br>Decrease Risk<br>Support<br>Average Risk<br>of Phase<br>Claim is:<br>Achieved<br>Not Achieved |
| Safety /<br>Tolerability  |  |  |  |   |  |                                       |   |  |
| Combination<br>Therapy  |  |  |  |   |  |                                       |   |  |
|   |  | Promotion<br>At Launch<br>Post Launch<br>Publication<br>At Launch<br>Post Launch | Incidence of<br>AEs<br>Discontinuation<br>Rate                                 |   |  |                                       |   | Existing data:<br>Increase Risk<br>Decrease Risk<br>Support<br>Average Risk<br>of Phase<br>Claim is:<br>Achieved<br>Not Achieved |
| Essential Biom  | arker Claims                                   |  |  |   |  |                                       |   |  |
| Essen<br>Messages,<br>(Pharmacology, e<br>or oth<br>(EU/U                           | <b>/Claims</b><br>efficacy, safety<br>ler)     | Commercial<br>Value of<br>Additional<br>Claims                                   | Promotion or<br>Publication<br>Only  | Target Meas                                   | Com  | parative<br>petitor<br>ata/<br>mation | Differential<br>Competitive<br>Advantages   | Probability of<br>Success/<br>Achievability  |
|   |  |  |  |   |  |                                       |   |  |
| Life Cycle Ma   | nagement                                       |  |  |   |  |                                       |   |  |
|   |  |  |  |   |  |                                       |   |  |
| Pharmacology  |  |  |  |   |  |                                       |   |  |
| Other Pro<br>Messages,<br>(Pharmacolog<br>safety, conv<br>pharmacoec                | <b>/Claims</b><br>gy, efficacy,<br>venience,   | Promotion or<br>Publication<br>Only  | Target<br>Measures   | Comparati<br>Competito<br>Data/<br>Informatio | or Com<br>Adva                                 | petitive                              | Probability of<br>Success/<br>Achievability |  |

| Dosage and Administration                                 |  |
|---|--|
| Pharmaceutical Form/Size:                                 |  |
| Colors:   |  |
| Route: oral/iv/sc/im administration                       |  |
| Schedule/Duration: daily or weekly.<br>Add food directive |  |

#### **Unfavorable Profile Elements**

(e.g., teratogenicity, significant contraindications, inferiority data)

#### **Special Technical Requirements**

(e.g., special packaging, delivery devices, required diagnostic tests, non-standard package sizes/configurations)

Shelf Life:

Primary and secondary packaging:

#### **Special Marketing Requirements**

(e.g., need for co-promotion or co-marketing partner, or need to develop new market)

- (Examples: Need to DIFFERENTIATE in a crowded market through distinct messaging)
- (Examples: Health Economics dossier required to support premium pricing in the already difficult pricing/reimbursement/regulatory environment)

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The Americas +1.888.COVANCE (+1.888.268.2623) +1.609.452.4440 Europe/Africa +00.800.2682.2682 +44.1423.500888 Asia Pacific +800.6568.3000 +65.6.5686588



